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The Commonwealth of Massachusetts.

FOURTH ANNUAL REPORT

OF

THE HOMESTEAD COMMISSION.

1916.



BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
32 DERNE STREET.
1917.

PUBLICATION OF THIS DOCUMENT
APPROVED BY THE
SUPERVISOR OF ADMINISTRATION.

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JUN 11 1916

The Commonwealth of Massachusetts.

BOSTON, December, 1916.

To the Honorable Senate and House of Representatives.

In compliance with the provisions of chapter 714 of the Acts of 1912, and chapters 494 and 595 of the Acts of 1913, the Homestead Commission, created by chapter 607 of the Acts of 1911, has the honor to submit the accompanying report and bills.

CHARLES F. GETTEMY, *Chairman.*
AUGUSTUS L. THORNDIKE.
KENYON L. BUTTERFIELD.
GEORGE CHANDLER WHIPPLE.
EVA W. WHITE.
WARREN DUNHAM FOSTER.
HENRY STERLING, *Secretary.*
ARTHUR C. COMEY.
CORNELIUS A. PARKER.

REPORT OF THE HOMESTEAD COMMISSION.

The Recommendation, and Some Reasons for it.

The Homestead Commission renews its recommendation of last year for an appropriation sufficient to allow an experiment or demonstration to be made in providing wholesome, low-cost homesteads, or "small houses and plots of ground,"¹ for "mechanics, factory employees, laborers and others in the suburbs of cities and towns,"¹ and accompanies the bill with detailed plans.

The principal considerations which induce the Commission to make this recommendation are —

There are not enough wholesome, low-cost dwellings.

There is no prospect that present methods will ever supply enough unless the State encourages their construction.

Therefore the State should experiment to learn whether it is possible to build wholesome dwellings within the means of low-paid workers.

Up to the time of the present great war every progressive country, without loss and generally without expense to the taxpayers, was doing something to promote the construction of dwellings for workers. Germany had built and financially aided in the building of many thousands of such dwellings. Since the war began England has enormously increased her expenditures for this purpose. New Zealand's activities, the most extensive of any, show a profit to the public treasury of nearly half a million dollars per year.

History of the Bill. — The original instructions given to this Commission were to draw a bill under which, "with the assistance of the Commonwealth, homesteads, or small houses and plots of ground, may be acquired by mechanics, factory employees, laborers, and others in the suburbs of cities and towns."¹ Such a bill² was submitted by the Homestead Com-

¹ Chapter 607, Acts of 1911.

² House, 441 and 442, 1912.

mission to the General Court of 1912. Its principal provision was that the uncalled-for savings banks deposits in the State treasury might be used for the purpose proposed. The constitutionality of such use of these funds being questioned, queries were submitted to the Supreme Court on that point, which body in a sweeping and unanimous opinion¹ declared that the use of any funds over which the State had control, for the purpose of aiding citizens to acquire homes, was contrary to the provisions of the Constitution.

Since that time a constitutional amendment² permitting the taking of land for such a purpose was passed by overwhelming majorities in both branches of the Legislature in 1914 and 1915, and ratified by the voters by nearly a three to one majority in 1915. In consideration of this removal of the constitutional obstacles to legislation, the Homestead Commission in 1916 felt it to be its duty to revert to the instructions given to it by the Legislature in 1911,³ and to report to the General Court a new bill⁴ providing for a moderate, conservative, carefully conducted experiment, or demonstration, in order that experience might show what may properly be done, with safety to the Commonwealth and benefit to the public, to aid workers seeking to acquire homes. In support of this bill, which called for an appropriation of \$50,000, the Homestead Commission presented to committees, somewhat in detail, information regarding the location and cost of certain pieces of land suitable and available for the purpose, and photographs, plans, specifications and cost of certain houses already built of the kind needed. Nevertheless, the passage of the bill was strongly opposed in both houses, the main contention urged against it being that no detailed plans accompanied the recommendation; and although it passed the lower House by a vote of 113 yeas and 86 nays, in the Senate it was defeated by a tie vote, 19 to 19. In renewing its recommendation of last year, therefore, the Com-

¹ Opinion of the Justices, 211 Mass. 624; House, 2339, 1912.

² The general court shall have power to authorize the commonwealth to take land and to hold, improve, sub-divide, build upon and sell the same, for the purpose of relieving congestion of population and providing homes for citizens: *provided, however*, that this amendment shall not be deemed to authorize the sale of such land or buildings at less than the cost thereof. (Constitutional Amendment ratified Nov. 2, 1915, 284,568 to 95,148. Vote in the General Court: 1915, Senate, 28 yeas, 7 nays; House, 193 yeas, 14 nays; 1914, Senate, 33 yeas, 3 nays; House (April 10), 182 to 0; (May 29), 191 to 2.)

³ Chapter 607, Acts of 1911.

⁴ House, 513, 1916.

mission deems it essential to submit with this year's bill carefully drawn plans for definite, concrete projects, in specified locations, giving as full details as is possible with the time and funds at its disposal.

Previous reports¹ of the Commission have set forth with much detail the shortage and great need of good homes within the means of the low-paid workers of the Commonwealth; the wretched and repulsive conditions in which thousands of families live; the morally debasing and physically and mentally deteriorating tendency of such conditions; their injurious effects on the general public health and well-being; the facilities they offer for the spread of disease, particularly tuberculosis; the excessive loss of life among infants and young children; the undue amount of delinquency and moral and mental deficiency and lessened efficiency among dwellers in such houses; the lowered standard of citizenship which results from these causes; the constantly increasing tenement-house population; the increasing flow of people from country to city and its ill effects in relatively decreasing the supply of food with increasing demand; the effects in congestion of population and unemployment of the constant influx from the rural districts with no corresponding flow of people away from the cities. The reports also describe the measures taken by other countries to alleviate these conditions, and the results of such activities, showing that Massachusetts and the United States are far behind all other progressive countries of the world in efforts to deal with this subject.

General Statement regarding Plans.

In order to work out its plans the Commission desired to select one tract of land within reasonable walking distance of the industries of a manufacturing city, to be divided into plots to furnish room for (a) house and small garden, accommodating about eight families to the acre; (b) another tract within a 5-cent car ride, to be divided into plots varying from one-eighth to half an acre each; and (c) a third more distant tract to be divided into plots varying in size from one-half acre to 5 acres. It was found inadvisable to attempt to carry

¹ Legislative reports: House, 441, 442, 1912; House, 2000, 1913; first, second, third annual reports 1913, 1914 and 1915 (Public Document No. 103).

out the plans for the third project, largely because of lack of funds. The results of the Commission's work on the first two projects are presented herewith.

MINIMUM REQUIREMENTS FOR WHOLESOME HOMESTEADS.

The Commission approves the statement that the ideal homestead is the single family house, preferably detached, with plot of ground. For such a home, what are the minimum requirements?

To answer this question it is necessary, first, to determine who most need such homes, how much they can pay, and what are the actual necessities for wholesome living.

Who most need Such Homes. — There were 411,115 adult males employed in 1914 in the manufacturing industries of Massachusetts, 258,133, or 63 per cent., working for less than \$15 per week. Of these, 98,330, or 24 per cent. of the whole, received less than \$10 per week.¹ Probably a majority of these men are heads of families. Nearly all live in a few rooms in low-priced tenements, wholesome or unwholesome. Every consideration of public health, morals, well-being and progress and stability of civilization demands that the children of these men be brought up in wholesome, healthful homes. Yet almost the only dwellings available to them are the tenements, into which they are flocking in increasing proportions.² The environment of the cheap tenement tends toward everything that is undesirable, but only a very few of the tens of thousands of families housed in such tenements can ever escape from them without aid. This is the class for whom provision should be made.

Amount they can pay. — All authorities agree that the cost for rent should not exceed one-quarter the wages of the head of the household. Inasmuch as the income of the head of the families under consideration seldom exceeds \$60 per month, the utmost they should pay is \$15 per month for shelter. This appears to be too high for those receiving less than \$15

¹ Statistics of Manufactures, Bureau of Statistics.

² Third annual report, Homestead Commission, pp. 14-17.

per week, but it should be remembered that this Commission believes that there will be a considerable offset from the garden, for which provision should in every case be made. This is 9 per cent. per year on a \$2,000 homestead. A gross return of 9 per cent. on such an investment appears to be as low as is safe, whether property is sold or rented. Can wholesome dwelling places be supplied within that figure?

Actual Necessities for Wholesome Living. — Assuming an ordinary family, — parents and children of both sexes, — the house should have at least —

Living room, kitchen, 3 bedrooms, closets, cellar.

Cooking, heating, lighting, washing, toilet and bathing facilities.

Provision for drainage, sewage and garbage disposal.

There need not be a heating system, but provision should be made for stoves, other than cooking range, in places needed, and construction may well allow for a future heating system. The structure should be made as fire-resisting as possible with due consideration to cost.

The words of the act relating to homesteads preclude consideration of tenement houses, but there is one form of construction known as "semi-detached," more commonly hereabouts called a "double" house, which should receive some attention. In this case two houses are joined by a vertical party wall. Each house is complete in itself, and entirely separate from the other except for the party wall. Some examples of this method are to be seen in New England, but it seems not to have been greatly favored. It is freely used abroad, however, in the various better-housing enterprises. Its manifest advantage over the single house is economy in construction and in land. The principal objection to it is that it is a step away from the ideal single-family home toward the multiple dwelling. Where sufficient land is available the social advantages of houses entirely separate probably outweigh the economies effected by semi-detached construction. Some illustrations of semi-detached houses are included in the plans submitted.

Land enough for a garden, small or large, should go with each house. Sunlight and fresh air, plenty of both, are as essential to good health, happiness and general well-being as are food, clothing and shelter. To secure them there must be space — a “plot of ground” — around the home. Its proper and profitable use should be insisted upon. Competent instruction and supervision should be provided.

Some Benefits of Such Homes. — We have thus summarized what seem to be the minimum requirements for such a homestead. The social and individual benefits to be derived are beyond calculation. They have been so fully considered in previous publications of this Commission that extended reference to them here is unnecessary. It may be well, however, briefly to restate some of them: —

A saving of lives, particularly of children and infants.

Better health, public and individual.

Less opportunity for the contraction and spread of tuberculosis and other communicable diseases.

Wholesome and healthful environment.

Space for play.

Infinite increase in the chances for joy in living, particularly for children.

A tendency to inspire and elevate, physically, mentally, morally, rather than to depress, dishearten and deteriorate.

Opportunities for an enjoyable and profitable employment that leads to the most fundamental of all vocations and gives rich returns for spare-time work both for parents and children.

THE POSSIBILITY OF PROVIDING SUCH HOMES.

The question recurs, Can such homesteads be brought within the means of low-wage workers? The problem is to supply a homestead with these minimum requirements for \$2,000.

Is Suitable Land Available? — The first necessity is suitable land. Can it be secured at a price low enough to justify its use for such dwellings? Obviously not in the high-priced, central portions of cities. The homes must be located in the

suburbs, either within or without the boundaries, as circumstances may determine. Most cities have large tracts of undeveloped land within their limits, enough for immediate use and to last for some time in the future. Cambridge, Chelsea, Lawrence and Somerville are exceptions, being almost completely built over, but near Lawrence there is much spare land. Boston has over 7,000 acres of unoccupied territory, but much of it within a 5-cent fare radius is held at too high a price to permit of its being used in this way. In or near the rest of the cities there appears to be plenty of available land at not too high cost. Inquiry easily disclosed over 160 acres of land, in four tracts, now on the market, within or close to Lawrence, at \$200, \$1,306.80 and \$1,197.90 per acre; about 445 acres in five tracts in or near New Bedford at prices ranging from \$100 per acre to \$450 per lot of about 5,000 square feet, \$3,920.40 per acre; one tract of more than 500 acres within a 5-cent fare of Fall River at \$20,000, about \$40 per acre; at Lowell, 66 acres for \$3,000, or \$45.45 per acre, 55 acres for \$26,000, or \$472.72 per acre, 40 lots of 5,500 square feet each for 1 cent per foot (\$435.60 per acre), 2,000,000 square feet, or 45.91 acres, at \$653.40 per acre, 33 acres for \$1,500, or \$45.45 per acre, 212 acres for \$10,000, or \$47.17 per acre. These are tracts upon the market in the summer of 1916 for immediate sale. Some of them are in fair condition for immediate building, but others would require much labor to fit them for use. All are within or close to the 5-cent fare radius. They represent only a small proportion of the tracts available, and mention is made of them here only to show that in most localities land is abundant at moderate prices.

This indicates that suitable suburban land can be acquired in or near to many cities at a cost ranging from \$40 up to about \$700 per acre. Subdivided into 8 lots (nearly 5,000 feet per lot), there results a cost of from \$5 to about \$90 per lot. The expense for survey, bounds, preparation of soil, sewerage, water supply, roadways, curbs, walks, trees, etc., would be about \$175 per lot¹ in the urban development. In more distant developments the cost would be much lower, as

¹ See page 55 for Lowell estimates.

a less expensive type of improvement would be appropriate, probably \$80¹ or less.

For a development within city limits, then, there remains a balance not to exceed \$1,735 for the construction cost of the house itself.

Perhaps as good a way as any to show what can be done for that sum is to give a few illustrations of what actually has been done in recent years in this country at about that figure. Various groups in different places have experimented on the problem of supplying wholesome houses for the poor at prices within their means. Some of the results of their work are herewith offered for consideration. No great amount of material is available for comparison, as most enterprises of this kind by employers or others have produced tenements, houses in rows, or houses either far above or far below the requirements and cost of \$2,000, deemed by this Commission most nearly to meet the present needs in Massachusetts. Abundant material from other countries could be introduced, but conditions, methods of building, requirements and customs abroad differ so greatly from ours that details of construction appear to have but little value here. The lowest cost for government-aided cottages with plot of ground in Ireland is given as \$750. In eastern European countries before the war the cost for such dwellings ran lower. In New Zealand the construction cost of State-aided dwellings was fixed at £300, which amount was gradually increased until in 1914 the total value of a State-aided worker's dwelling and lot must not exceed £750. "Workers' dwellings are now being erected on rural allotments of about 5 acres, with the maximum unimproved value of land of £250; this allows £500 (\$2,500) for the cost of any building erected."² In Queensland, Australia, it reaches a maximum of rather more than \$4,800.

In presenting these illustrations of actual recent construction the Homestead Commission is not unmindful of rapidly increasing prices. It would be unwise and probably untrue to say that a house which cost a certain sum in 1915 or 1916 can

¹ For example, at Billerica the approximate cost per gross acre would be for survey and bounds, \$17; preparation of soil, \$42; sewers with cesspools, \$104; water pipe, \$18; roadways, \$136; walks, \$35; trees, \$12; total, \$424.

² New Zealand Official Year Book, 1915.

be built for the same or approximately the same amount in 1917. Yet it is to be remembered that the higher prices go, the greater is the need of the poor. Nor can any important decrease in prices be expected in the near future. It would seem to be urgent, therefore, to proceed with an experiment at once, in order to meet the present need. Should declining prices later result in lower costs to build, a broader and safer work will be made possible by the experience gained under high prices.

Throughout this report wood construction has been considered almost exclusively, largely because that is the prevailing type in this locality. The Commission is aware that brick or other forms of durable construction may in the long run be more economical, and some study has been made of such methods as the various forms of concrete, hollow tile and stucco. We believe that several materials should be represented in this experiment, and that careful note should be made of results, so that future years might determine which is the most suitable and economical.

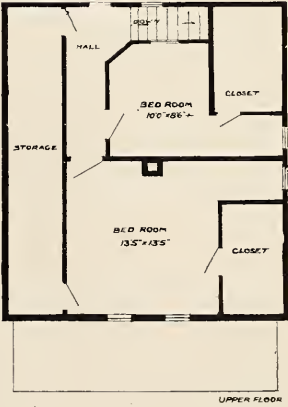
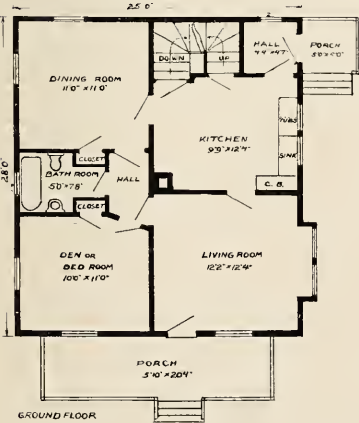
ILLUSTRATIONS OF ACTUAL RECENT LOW-COST CONSTRUCTION.

Billerica Garden Suburb. — In North Billerica, where an attempt to produce a garden suburb somewhat similar to those of England and Germany is meeting with considerable success, among the houses built one finished late in the year 1916 is chosen as an illustration of what has actually been recently successfully accomplished in the construction of a low-cost home. This house, photograph and floor plans of which appear on page 17, is of semi-bungalow type, 25 by 28 feet, with piazza 20 by 7 feet. It contains six rooms and bath. The rooms are of ample size and conveniently arranged. Special provision is made for storage room and closet space, with place for refrigerator and for hanging outdoor clothing in back entry. The cellarway has a number of shelves to save steps in doing the necessary work. The cellar walls are of concrete, with four window openings giving ample light in all parts. The building is of frame construction, triple studding at the corners and double studding at all openings; sides are covered with matched boards, a layer of good building paper

and cypress clapboards; roof closely boarded and covered with asphalt shingles with slate chip surface laid $4\frac{1}{2}$ inches to the weather. The inside is finished in North Carolina pine with hard pine flooring of good grade, cypress five-panel doors, front door of the craftsman type of quartered oak; outside painted with three coats of lead and oil and inside finished with two coats of shellac and one of spar varnish; kitchen and bathroom have three coats of good wall paint. Three fixtures of modern type are in the bathroom, and the kitchen has set tubs, sink and necessary cabinet work. The house is lighted throughout with electricity, triple "showers" in living room and dining room and two fixtures in the kitchen. It has a furnace of adequate capacity to furnish necessary heat without forcing. It is of attractive design, homelike in appearance and of comparatively low cost, as it was built for a little over \$1,800.



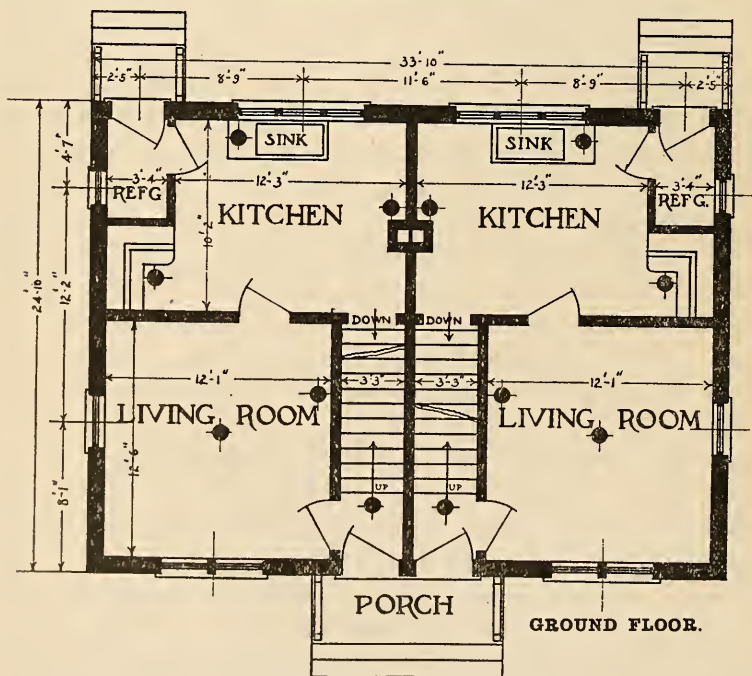
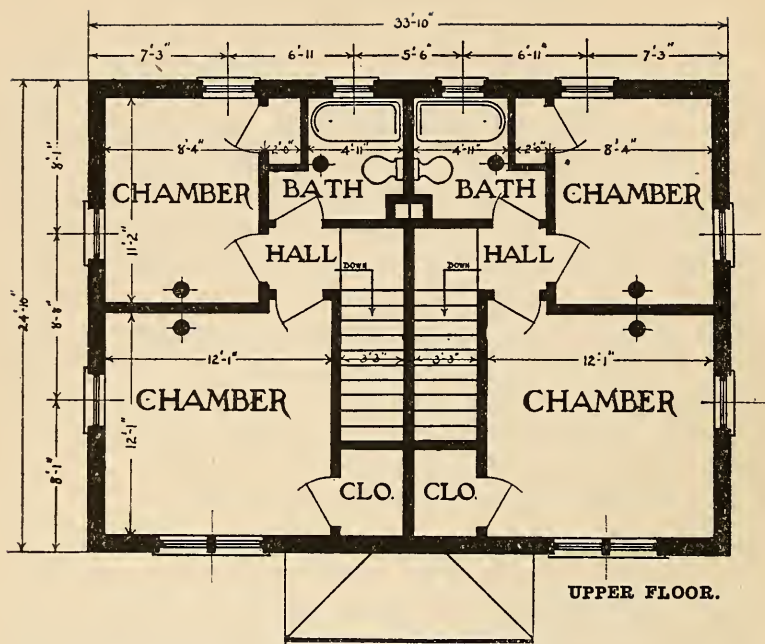
Six-room semi-bungalow, Billerica Garden Suburb, 1916. Construction cost \$1,800.



Floor plans of above.

Salem Model Low-cost Houses. — In Salem, after the fire of 1912, the Rebuilding Trust constructed a number of houses which fall within the limits considered here. Semi-detached or double houses of brick construction, slate roof, four rooms and bath to each house, were offered for sale at \$3,582.16, or \$1,791.08 per house. The first two photographs, A and A', page 21, give different views of one of these houses. Plan 1, page 20, shows the floor plans for the first and second floors.

The exterior walls are 8-inch brick, strapped internally; roofs of sea-green slate fastened with copper nails, flashed with copper and lead; sides and faces of dormers, stucco applied to wire lath on wood frame; foundations block granite, exterior doorsills also granite; window sills of sloping brick with copper pan under; party wall brickwork between studs, treatment carried to underside of roof; chimney brick with two 9 by 9 inch flues with lining. Each of the two houses has a living room, kitchen with pantry alcove, back entry with refrigerator space and stairs to second floor and cellar on the lower floor. The second-floor plan shows in each of the two houses two chambers, small hall and bathroom. All rooms are furred on the exterior walls, lathed and plastered. The under floors are spruce with finished floors of rift hard pine everywhere except in the kitchens, where they are maple. All finished floors are matched and blind-nailed and are laid over building paper. Interior finish North Carolina pine, stained and shellacked. Floors are oiled. Outside doors pine, inside doors cypress. No screens are included. Dressers in the kitchen consist of the counter and four shelves, hanging strips, etc. Picture moulding put up in the living rooms. Cellar has an earth floor carefully smoothed and rolled and furnished with coal bins, space for heater, etc. Hardware of brass and porcelain of the strongest and most substantial type. Plumbing fixtures include bathtub of enameled iron and water-closet of syphon-action type, iron sinks in kitchens, and 30-gallon hot-water copper tanks on city pressure with relief valves. Outside finish, cypress, except in connection with porch floors, which are rift hard pine, oiled. Painting of lead and oil for all outside work except porch floors and copper. Inside work includes all sash treatment, etc. Plaster walls in

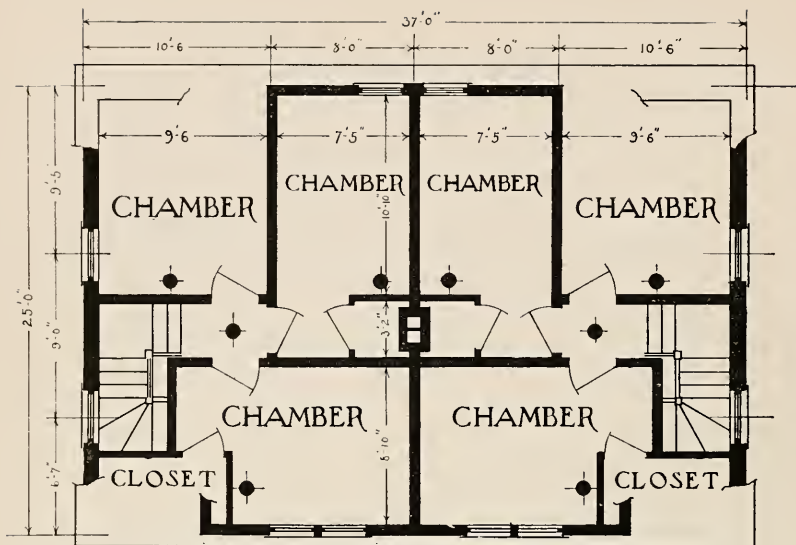


Plan 1. — Floor plans, Salem four-room, semi-detached houses, A and A'.

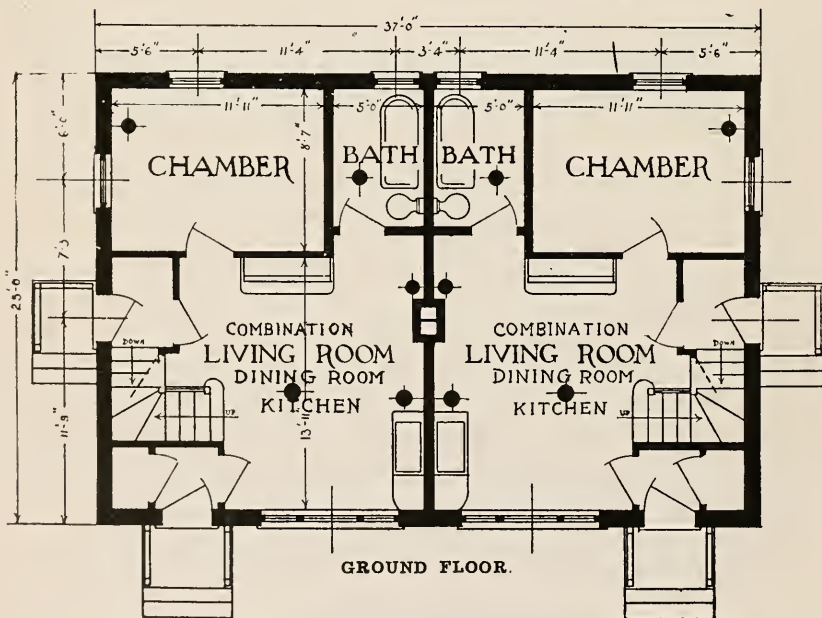


Kilham & Hopkins.

A and A'.—Two views of four-room, semi-detached houses, Salem. Total cost \$3,582.16, or \$1,791.08 per house. Floor plans on opposite page.



UPPER FLOOR.



GROUND FLOOR.

Plan 2. — Floor plans, Salem five-room, semi-detached houses, B and B'.



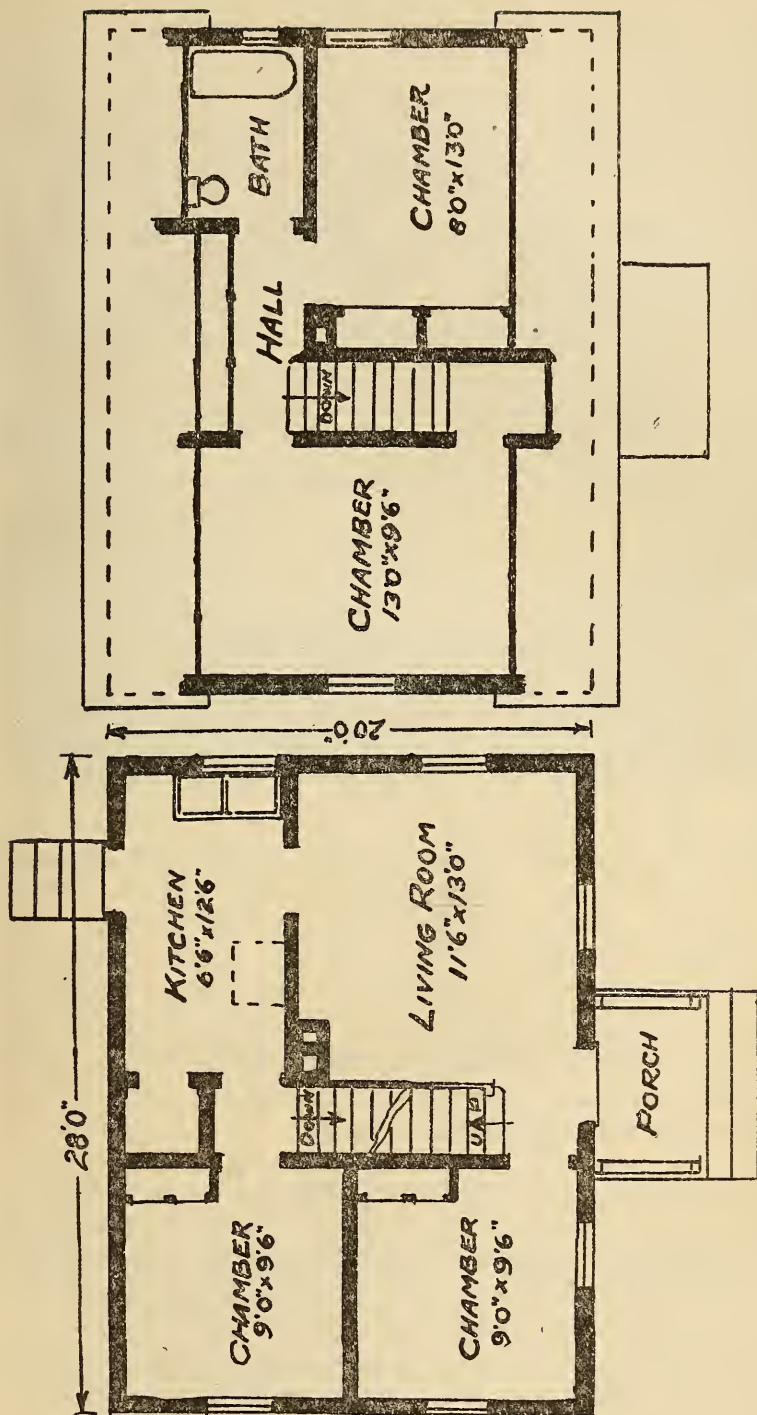
Kilham & Hopkins.

B and B'. — Two views of five-room, semi-detached houses, Salem. Total cost \$3,886.62, or \$1,943.31 per house.



Mann & MacNeille.

**C and C'. — Six-room houses at Kistler, Pa., \$1,000 to \$1,600.
Floor plans on opposite page.**



Plan 3. — Floor plans of C and C'.

kitchen, hall and stairways sized and finished in oil paint, three-coat work. The houses are lighted by both electricity and gas, and gas connections are provided in kitchens for gas ranges.

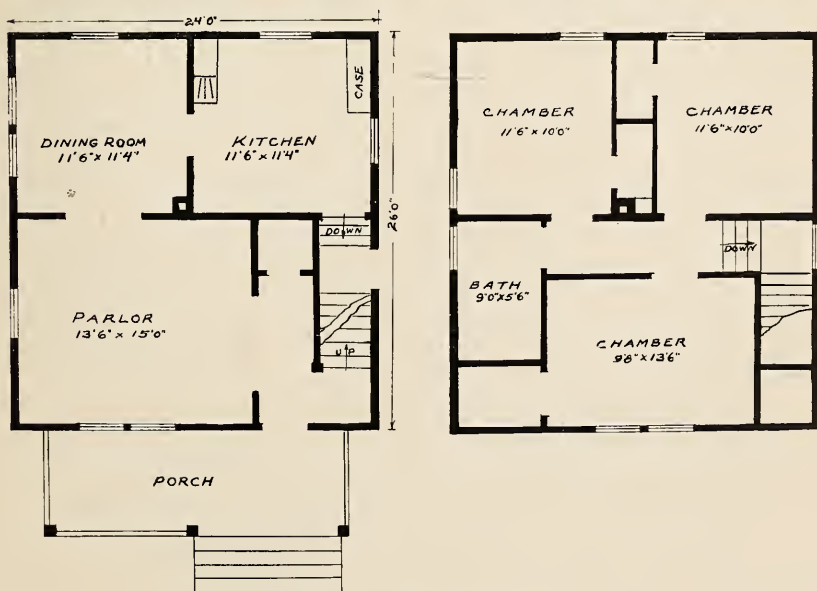
Five-room double or semi-detached houses were also built for rent at \$15 or for sale at \$3,886.62, or \$1,943.31 per house, B and B', Plan 2, pages 22, 23. Each of the two houses contains on first floor a large kitchen to be used also as living room, with open stairs to the second floor, room to be used as parlor or bedroom, bathroom, vestibule with coat closet, passageway to the back door, with space for refrigerator. Second floor included three chambers, passageway, general closet and closets for two of the chambers. Specifications same as for A and A'. Dormers occur, however, only in connection with B and B'.

Some Pennsylvania Low-cost Houses. — In Kistler, Pa., near Altoona, six-room houses were built in 1915 at an estimated cost of \$1,000 each. This amount, however, had subsequently to be advanced to about \$1,600. About 100 houses have been built, substantially after this plan. They are one and one-half stories in height, cellar walls of field stone, frame shingled walls above, durable ruberoid roof, double-hung windows, bath, water-closet, kitchen sink, set tubs, water and sewer connection. Wiring was included, also small furnace. The lot was 40 by 100 feet, valued at \$200. The houses rent for \$10 per month, but it is understood that most of them were sold. This arrangement of floor plan proved to be very attractive from its practical character. Views of three of the houses are shown in the photographs C and C', and floor plans with data are shown in Plan 3.

A Wisconsin Low-cost House Undertaking. — Early in 1916 the number of employees in the principal factories of Kenosha, Wis., increased more than 3,000, representing 1,500 families. In the same period only 245 houses were constructed. A Kenosha Homes Company was organized and it proposes to build at least 400 low-cost homes, for sale or rent. The cost of the lots will average about \$350 to \$400, and the houses to



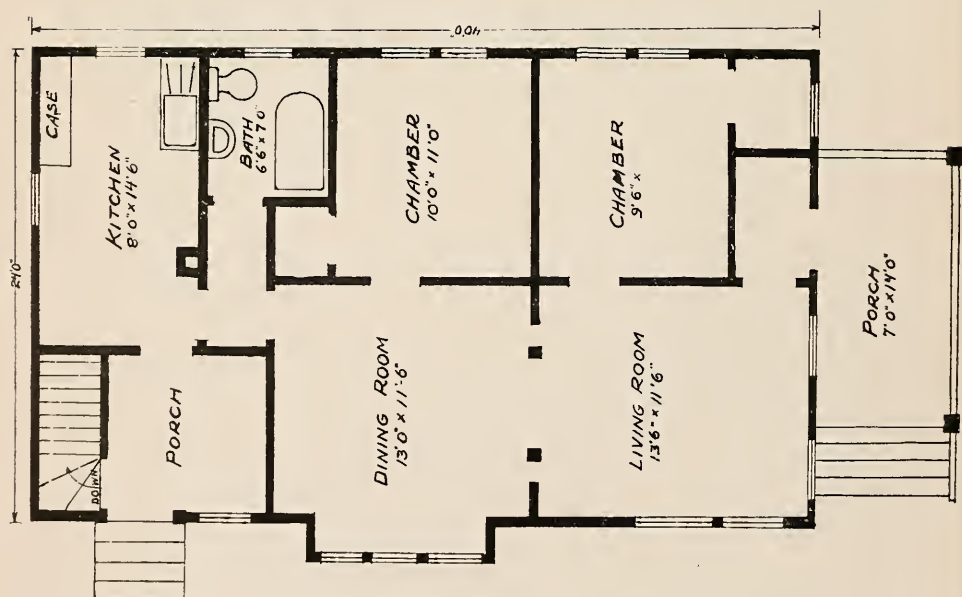
D. — Six-room Kenosha house, 1916. Construction cost \$1,725.



Plan 4. — Floor plan of above.



E. — Five-room Kenosha house, 1916. Construction cost \$1,700.



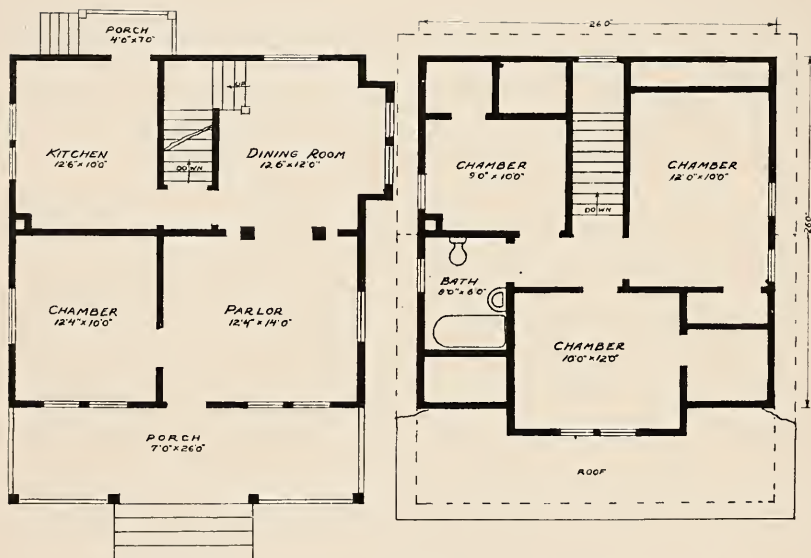
Plan 5. — Floor plan of above.



F. — Five-room Kenosha house, 1916. Construction cost \$1,700.



G. — Seven-room house, 1916. Construction cost \$1,800.
Floor plans on page 30.



Plan 7. — Floor plans of seven-room, \$1,800 house, G, shown on page 29.

be built, from \$1,800 to \$2,000, mostly single-family detached houses. D, E, F, G, with Plans 4, 5, 7, present types of a group of these houses built in Kenosha in 1916.

The first, D, is a story and a half, six-room house, cost \$1,725 to build. Cellar with cement block walls, wood frame house with stucco covering for first floor, shingles for walls above and for roof surfaces. The windows are double hung. Rooms finished in plaster with wood floors. Chimney brick single 8 by 8 flue. Plumbing includes bath, water-closet and kitchen sink.

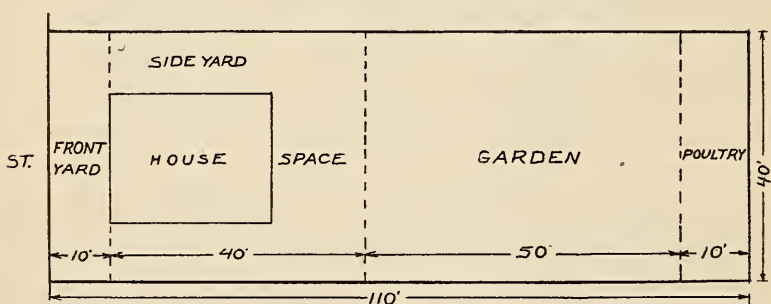
E, costing \$1,700 to construct, is a one-story, pitched-roof, five-room house; living room 11 feet 6 inches by 13 feet 6 inches, dining room 11 feet 6 inches by 13 feet, kitchen 14 feet 6 inches by 8 feet, two chambers 11 feet by 10 feet and 11 feet by 9 feet 6 inches, front and back porch, bath.

F is a house of five rooms and bath, cost \$1,700; ground measurements 24 feet by 40 feet, two bedrooms each 10 feet by 11 feet 9 inches, kitchen 9 feet 9 inches by 10 feet 9 inches, dining room 10 feet 9 inches by 13 feet 6 inches, living room 11 feet 3 inches by 16 feet 3 inches. The lot unimproved \$308, improvements \$494.94, total cost \$2,502.94.

G, \$1,800. Seven-room house with bath, parlor, dining room, kitchen and chamber on the first floor, 3 chambers on the second floor, ample front porch and small back porch.

GARDENS.

Of what value — communal, individual, financial — is the small garden with the homestead? Obviously not of great financial value if ignorance and neglect prevail. From a monetary standpoint it would be useless and wasteful to place a number of families from the tenements, with little or no knowledge of garden management, in such homesteads as are being considered, unless care were taken to secure the fullest and most profitable use of the privileges offered, by providing competent instruction, supervision, and possibly some slight compulsion. Nevertheless, even from poorly kept gar-



Suggested subdivision of 4,400-foot lot.

dens great benefits are to be gained in health, happiness, success, efficiency. These are not the products of closely packed tenements or noisy, crowded streets, but they are rather to be found where ample sunlight, fresh air and space to play and to work prevail. The communal benefit of rearing children in such an environment is beyond estimate. Caring for a garden affords the best possible mental and physical tonic.

The financial return from a garden depends upon so many uncertain factors that while in some instances its value is very great, in others the pecuniary reward for labor expended is less than nothing at all. The character of the cultivator, his industry, intelligence and knowledge of the work, the kind and quality of the soil, the crops selected, the quality of the seeds, the vagaries of the weather, all have a direct and important bearing on the amount and value of the product. There are so many uncertainties that it may be unsafe to

make estimates, but it would seem to be possible to ascertain what might be a minimum *average* output for a small garden properly cultivated. There need not be any total failures. "The fundamentals of success in home gardening," says Prof. H. F. Thompson,¹ are: "First, good seed; second, well-prepared soil; third, proper planting; fourth, thorough tillage; and fifth, an acquaintance with the nature and habits of the plants which are grown. *Thus fortified, the home garden is a sure success.*"

In the division of an acre for the use of eight families, a layout of 40 feet frontage and 110 feet depth, or figures closely approximating these, would frequently be found. Such a lot lends itself to convenient subdivision, as follows: Set-back, or front yard, 10 feet; house space, 40 feet, which would allow considerable room for outdoor work, play, clothes-drying, flowers, etc.; 50 feet of the depth of the lot, or 2,000 square feet, rather less than one-twentieth of an acre, for garden; 10 feet for poultry yard.

Probably no one with practical knowledge will deny that intensive, intelligent cultivation should produce an average of \$25 worth of vegetables per year from such a garden plot. Some experts will say more. School gardens and cultivated vacant city lots are much more numerous than is realized by the average citizen, and their number is of late increasing rapidly. Statements and reports from many of them justify these figures. Good seasons with good management would bring much more. Where the keeping of poultry is permissible add \$11 for return from the hens, an exceedingly low estimate when waste from the garden and kitchen is utilized. This is \$36 per year, or \$3 per month offset from the \$15 per month payment on the homestead. This appears to be a reasonable minimum average to expect from such gardens. How much more might be gained by superior skill and application, experience alone can determine. Following is a record for the year 1916 of expenses and returns for a plot of 2,000 square feet of land in the residential portion of Somerville: —

¹ Transactions of the Massachusetts Horticultural Society, 1915, Part I., p. 68.

Expense.

Seeds,	\$3 65
Manure,	3 00
Lettuce plants,	40
Beans,	15
	<hr/>
	\$7 20

Returns.

Tomatoes,	\$11 05
Berries,	2 55
Lettuce,	2 40
Parsnips,	2 15
Celery,	2 00
Corn,	1 95
Beans,	1 70
Green peas,	1 50
Onions,	85
Asparagus,	75
Salsify,	55
Rhubarb,	40
Spinach,	40
Carrots,	35
Radishes,	30
Leeks,	25
Beets,	15
Peppers,	15
Cabbage,	10
Horseradish,	10
Squash,	05

Value of garden truck,	\$29 70
Cost of seeds, etc.,	7 20
	<hr/>
Net return,	\$22 50

This product could have been greatly increased by more intensive cultivation. Accounts of instances where much larger returns have been obtained are not uncommon. The Homestead Commission has some of these in its office. There is good reason to expect that the figures set forth would often be exceeded by considerable amounts; but this sum, added to the benefits arising from better health, happiness, thrift, increased knowledge and experience in actually doing things, should make such homes exceedingly attractive and beneficial.

TERMS.

The terms upon which purchasers may acquire homesteads should receive careful consideration. One first point seems clear, — no title deeds should pass until at least 20 per cent. of the purchase price has been paid. It is true that the rigid enforcement of a demand for so much cash in advance of possession might in some measure tend to defeat the purpose of homestead legislation, which is to make it possible for low-paid wage earners to acquire homes. Many such workers may not have, and may not be able to obtain, the necessary sum. It would seem that when circumstances warrant it, possession might be given upon a smaller first payment, the title to pass when the payments amount to 20 per cent. of the principal. While all the amortization tables given below begin with an initial payment amounting only to the sum to be required monthly, it is not to be assumed that a policy of allowing possession of property without a reasonable first payment is being proposed, but some latitude should be exercised in this regard. Workingmen with large families and small pay are in greatest need, and assistance to such would be productive of the largest communal benefits. It may be much wiser to assist such a family to a home in preference to a smaller family with more cash and larger income, even if no initial payment greater than the first month's installment could be made, provided character is good and there is reasonable financial responsibility. The point always to be kept in mind is the necessity, if any great good is to be accomplished, of reaching those whose needs are greatest. At the beginning of this experiment, however, it would probably be deemed wise to select those who had shown the ability to accumulate something toward the cost of a homestead. Until the matter has been tested out so that the management in charge is sure of its ground, it will doubtless be wise to adhere to a substantial initial payment.

Should the General Court authorize the Homestead Commission to proceed with the experiment or demonstration recommended in this report, thorough publicity of details and plans would be sought in the community where land is ac-

quired, with convenient opportunities for prospective participants to make application for a home. Selections from applicants should be governed by the foregoing considerations. It is well to note here that any operations undertaken by the Homestead Commission would be subject to the constitutional limitation "to provide homes for citizens."¹ Building should proceed with due regard to actual demand by suitable applicants, and should be behind rather than ahead of the demand, so that a waiting list might be established. With such a list there should be no difficulty or delay in an owner disposing of his holding in case of necessity. It might well be required that the seller accept pay for his equity in installments similar to those by which he acquired it.

Restrictions. — The property should be protected by an agreement that in case of sale the homestead shall first be offered to the Commission, or be sold through it or under its control, at a fair appraisal of value made at the time of sale, or at a price to be reached by mutual understanding. Such a requirement would prevent absentee ownership and also the ownership by any persons of more than one house. It should, however, entail no obligation to purchase either on the Commonwealth or Commission.

Some of the restrictions on the use of the land and buildings which should be provided for are as follows: Proper upkeep of houses, proper care and use of the lot and building as to health, morals, safety, freedom from noise, odors and appearance offensive to the general sense of the community, and the necessity for intensive cultivation of the land, since it is one of the purposes of the experiment to encourage such a use of the land as shall be educational, and tend in some degree to reduce the net annual cost of his house to its owner.

Paying off the Debt. — To give some idea of details of payments, number of years required to complete them, and the amounts paid and balance due at any given time, the following three amortization tables have been prepared, showing: First, on a \$2,000 house, payments of \$15 per month, to be

¹ Chapter 607, Acts of 1911.

applied to interest at 5 per cent., taxes \$20 per \$1,000, insurance \$6 per year, balance on principal; repairs and water rates left to the buyer. The table shows the amounts paid in, the accumulated interest due, the proportion of taxes and insurance, the balance to be applied to principal, and the balance of principal left unpaid, at the end of each three months' period, payments monthly in advance, first payment \$15. The debt would be extinguished in twenty-seven years, seven months. This may seem to be a long term, but it should be borne in mind that the people sought to be reached can make only small payments, and many of them pay relatively higher rents for poor or unwholesome dwellings for a greater number of years and at the end have nothing whatever to show for their money. Opportunity to make larger payments would always be open.

TABLE 1. — *Amortization Table showing the Paying Off of \$2,000 (Payments \$15 per Month, to cover 5 Per Cent. Interest, \$40 Taxes, \$6 Insurance).*

	Amount paid in.	Interest.	Taxes and Insurance.	Paid on Principal.	Principal left unpaid.
<i>First Year.</i>					
First quarter,	\$45 00	\$25 00	\$11 50	\$8 50	\$1,991 50
Second quarter,	45 00	24 89	11 50	8 61	1,982 89
Third quarter,	45 00	24 79	11 50	8 71	1,974 18
Fourth quarter,	45 00	24 68	11 50	8 82	1,965 36
<i>Second Year.</i>					
First quarter,	\$45 00	\$24 57	\$11 50	\$8 93	\$1,956 43
Second quarter,	45 00	24 46	11 50	9 04	1,947 39
Third quarter,	45 00	24 34	11 50	9 16	1,938 23
Fourth quarter,	45 00	24 23	11 50	9 27	1,928 96
<i>Third Year.</i>					
First quarter,	\$45 00	\$24 11	\$11 50	\$9 39	\$1,919 57
Second quarter,	45 00	23 99	11 50	9 51	1,910 06
Third quarter,	45 00	23 88	11 50	9 62	1,900 44
Fourth quarter,	45 00	23 76	11 50	9 74	1,890 70
<i>Fourth Year.</i>					
First quarter,	\$45 00	\$23 63	\$11 50	\$9 87	\$1,880 83
Second quarter,	45 00	23 51	11 50	9 99	1,870 84
Third quarter,	45 00	23 39	11 50	10 11	1,860 73
Fourth quarter,	45 00	23 26	11 50	10 24	1,850 49
<i>Fifth Year.</i>					
First quarter,	\$45 00	\$23 13	\$11 50	\$10 37	\$1,840 12
Second quarter,	45 00	23 00	11 50	10 50	1,829 62
Third quarter,	45 00	22 87	11 50	10 63	1,818 99
Fourth quarter,	45 00	22 74	11 50	10 76	1,808 23

TABLE 1 — *Continued.*

	Amount paid in.	Interest.	Taxes and Insurance.	Paid on Principal.	Principal left unpaid.
<i>Sixth Year.</i>					
First quarter,	\$45 00	\$22 60	\$11 50	\$10 90	\$1,797 33
Second quarter,	45 00	22 47	11 50	11 03	1,786 30
Third quarter,	45 00	22 33	11 50	11 17	1,775 13
Fourth quarter,	45 00	22 19	11 50	11 31	1,763 82
<i>Seventh Year.</i>					
First quarter,	\$45 00	\$22 05	\$11 50	\$11 45	\$1,752 37
Second quarter,	45 00	21 90	11 50	11 60	1,740 77
Third quarter,	45 00	21 76	11 50	11 74	1,729 03
Fourth quarter,	45 00	21 61	11 50	11 89	1,717 14
<i>Eighth Year.</i>					
First quarter,	\$45 00	\$21 46	\$11 50	\$12 04	\$1,705 10
Second quarter,	45 00	21 31	11 50	12 19	1,692 91
Third quarter,	45 00	21 16	11 50	12 34	1,680 57
Fourth quarter,	45 00	21 01	11 50	12 49	1,668 08
<i>Ninth Year.</i>					
First quarter,	\$45 00	\$20 85	\$11 50	\$12 65	\$1,655 43
Second quarter,	45 00	20 69	11 50	12 81	1,642 62
Third quarter,	45 00	20 53	11 50	12 97	1,629 65
Fourth quarter,	45 00	20 37	11 50	13 13	1,616 52
<i>Tenth Year.</i>					
First quarter,	\$45 00	\$20 21	\$11 50	\$13 29	\$1,603 23
Second quarter,	45 00	20 04	11 50	13 46	1,589 77
Third quarter,	45 00	19 87	11 50	13 63	1,576 14
Fourth quarter,	45 00	19 70	11 50	13 80	1,562 34
<i>Eleventh Year.</i>					
First quarter,	\$45 00	\$19 53	\$11 50	\$13 97	\$1,548 37
Second quarter,	45 00	19 35	11 50	14 15	1,534 22
Third quarter,	45 00	19 18	11 50	14 32	1,519 90
Fourth quarter,	45 00	19 00	11 50	14 50	1,505 40
<i>Twelfth Year.</i>					
First quarter,	\$45 00	\$18 81	\$11 50	\$14 69	\$1,490 71
Second quarter,	45 00	18 63	11 50	14 87	1,475 84
Third quarter,	45 00	18 45	11 50	15 05	1,460 79
Fourth quarter,	45 00	18 26	11 50	15 24	1,445 55
<i>Thirteenth Year.</i>					
First quarter,	\$45 00	\$18 07	\$11 50	\$15 43	\$1,430 12
Second quarter,	45 00	17 38	11 50	15 62	1,414 50
Third quarter,	45 00	17 68	11 50	15 82	1,398 68
Fourth quarter,	45 00	17 48	11 50	10 02	1,382 66
<i>Fourteenth Year.</i>					
First quarter,	\$45 00	\$17 28	\$11 50	\$16 22	\$1,366 44
Second quarter,	45 00	17 08	11 50	16 42	1,350 02
Third quarter,	45 00	16 88	11 50	16 62	1,333 40
Fourth quarter,	45 00	16 67	11 50	16 83	1,316 57

TABLE 1 — *Continued.*

	Amount paid in.	Interest.	Taxes and Insurance.	Paid on Principal.	Principal left unpaid.
<i>Fifteenth Year.</i>					
First quarter,	\$45 00	\$16 45	\$11 50	\$17 05	\$1,299 52
Second quarter,	45 00	16 24	11 50	17 26	1,282 26
Third quarter,	45 00	16 03	11 50	17 47	1,264 79
Fourth quarter,	45 00	15 81	11 50	17 69	1,247 10
<i>Sixteenth Year.</i>					
First quarter,	\$45 00	\$15 59	\$11 50	\$17 91	\$1,229 19
Second quarter,	45 00	15 36	11 50	18 14	1,211 05
Third quarter,	45 00	15 14	11 50	18 36	1,192 69
Fourth quarter,	45 00	14 91	11 50	18 59	1,174 10
<i>Seventeenth Year.</i>					
First quarter,	\$45 00	\$14 68	\$11 50	\$18 82	\$1,155 28
Second quarter,	45 00	14 44	11 50	19 06	1,136 22
Third quarter,	45 00	14 20	11 50	19 30	1,116 92
Fourth quarter,	45 00	13 96	11 50	19 54	1,097 38
<i>Eighteenth Year.</i>					
First quarter,	\$45 00	\$13 72	\$11 50	\$19 78	\$1,077 60
Second quarter,	45 00	13 47	11 50	20 03	1,057 57
Third quarter,	45 00	13 22	11 50	20 28	1,037 29
Fourth quarter,	45 00	12 97	11 50	20 53	1,016 76
<i>Nineteenth Year.</i>					
First quarter,	\$45 00	\$12 71	\$11 50	\$20 79	\$995 97
Second quarter,	45 00	12 45	11 50	21 05	974 92
Third quarter,	45 00	12 19	11 50	21 31	953 61
Fourth quarter,	45 00	11 92	11 50	21 58	932 03
<i>Twentieth Year.</i>					
First quarter,	\$45 00	\$11 65	\$11 50	\$21 85	\$910 18
Second quarter,	45 00	11 38	11 50	22 12	888 06
Third quarter,	45 00	11 10	11 50	22 40	865 66
Fourth quarter,	45 00	10 82	11 50	22 68	842 98
<i>Twenty-first Year.</i>					
First quarter,	\$45 00	\$10 54	\$11 50	\$22 96	\$820 02
Second quarter,	45 00	10 25	11 50	23 25	796 77
Third quarter,	45 00	9 96	11 50	23 54	773 23
Fourth quarter,	45 00	9 67	11 50	23 83	749 40
<i>Twenty-second Year.</i>					
First quarter,	\$45 00	\$9 37	\$11 50	\$24 13	\$725 27
Second quarter,	45 00	9 07	11 50	24 43	700 84
Third quarter,	45 00	8 76	11 50	24 74	676 10
Fourth quarter,	45 00	8 45	11 50	25 05	651 05
<i>Twenty-third Year.</i>					
First quarter,	\$45 00	\$8 14	\$11 50	\$25 36	\$625 69
Second quarter,	45 00	7 82	11 50	25 68	600 01
Third quarter,	45 00	7 50	11 50	26 00	574 01
Fourth quarter,	45 00	7 18	11 50	26 32	547 69

TABLE 1 — *Concluded.*

	Amount paid in.	Interest.	Taxes and Insurance.	Paid on Principal.	Principal left unpaid.
<i>Twenty-fourth Year.</i>					
First quarter,	\$45 00	\$6 85	\$11 50	\$26 65	\$521 04
Second quarter,	45 00	6 51	11 50	26 99	494 05
Third quarter,	45 00	6 18	11 50	27 32	466 73
Fourth quarter,	45 00	5 83	11 50	27 67	439 06
<i>Twenty-fifth Year.</i>					
First quarter,	\$45 00	\$5 49	\$11 50	\$28 01	\$411 05
Second quarter,	45 00	5 14	11 50	28 36	382 69
Third quarter,	45 00	4 78	11 50	28 72	353 97
Fourth quarter,	45 00	4 42	11 50	29 08	324 89
<i>Twenty-sixth Year.</i>					
First quarter,	\$45 00	\$4 06	\$11 50	\$29 44	\$295 45
Second quarter,	45 00	3 69	11 50	29 81	265 64
Third quarter,	45 00	3 32	11 50	30 18	235 46
Fourth quarter,	45 00	2 94	11 50	30 56	204 90
<i>Twenty-seventh Year.</i>					
First quarter,	\$45 00	\$2 56	\$11 50	\$30 94	\$173 96
Second quarter,	45 00	2 17	11 50	31 33	142 63
Third quarter,	45 00	1 78	11 50	31 72	110 91
Fourth quarter,	45 00	1 39	11 50	32 11	78 80
<i>Twenty-eighth Year.</i>					
First quarter,	\$45 00	\$0 99	\$11 50	\$32 51	\$46 29
Second quarter,	45 00	58	11 50	32 92	13 37
Third quarter,	—	—	—	—	—

The second table gives the same details for the same sum, \$2,000, payments \$15 per month, the whole amount to be applied on principal and interest, leaving taxes, insurance, water rates and repairs to buyer. In this case the debt is extinguished in sixteen years four months, but the financial burden is much heavier to carry.

TABLE 2. — *Amortization Table showing the Paying Off of \$2,000 (Payments \$15 per Month, Interest 5 Per Cent.).*

	Amount paid in.	Interest.	Paid on Principal.	Principal left unpaid.
<i>First Year.</i>				
First quarter,	\$45 00	\$25 00	\$20 00	\$1,980 00
Second quarter,	45 00	24 75	20 25	1,959 75
Third quarter,	45 00	24 50	20 50	1,939 25
Fourth quarter,	45 00	24 24	20 76	1,918 49
<i>Second Year.</i>				
First quarter,	\$45 00	\$23 98	\$21 02	\$1,897 47
Second quarter,	45 00	23 72	21 28	1,876 19
Third quarter,	45 00	23 45	21 55	1,854 64
Fourth quarter,	45 00	23 18	21 82	1,832 82
<i>Third Year.</i>				
First quarter,	\$45 00	\$22 91	\$22 09	\$1,810 73
Second quarter,	45 00	22 63	22 37	1,788 36
Third quarter,	45 00	22 35	22 65	1,765 71
Fourth quarter,	45 00	22 07	22 93	1,742 78
<i>Fourth Year.</i>				
First quarter,	\$45 00	\$21 78	\$23 22	\$1,719 56
Second quarter,	45 00	21 49	23 51	1,696 05
Third quarter,	45 00	21 20	23 80	1,672 25
Fourth quarter,	45 00	20 90	24 10	1,648 15
<i>Fifth Year.</i>				
First quarter,	\$45 00	\$20 60	\$24 40	\$1,623 75
Second quarter,	45 00	20 30	24 70	1,599 05
Third quarter,	45 00	19 99	25 01	1,574 04
Fourth quarter,	45 00	19 68	25 32	1,548 72
<i>Sixth Year.</i>				
First quarter,	\$45 00	\$19 36	\$25 64	\$1,523 08
Second quarter,	45 00	19 04	25 96	1,497 12
Third quarter,	45 00	18 71	26 29	1,470 83
Fourth quarter,	45 00	18 39	26 61	1,444 22
<i>Seventh Year.</i>				
First quarter,	\$45 00	\$18 05	\$26 95	\$1,417 27
Second quarter,	45 00	17 72	27 28	1,389 99
Third quarter,	45 00	17 37	27 63	1,362 36
Fourth quarter,	45 00	17 03	27 97	1,334 39
<i>Eighth Year.</i>				
First quarter,	\$45 00	\$16 70	\$28 32	\$1,306 07
Second quarter,	45 00	16 33	28 67	1,277 40
Third quarter,	45 00	15 97	29 03	1,248 37
Fourth quarter,	45 00	15 60	29 40	1,218 97
<i>Ninth Year.</i>				
First quarter,	\$45 00	\$15 24	\$29 76	\$1,189 21
Second quarter,	45 00	14 87	30 13	1,159 08
Third quarter,	45 00	14 49	30 51	1,128 57
Fourth quarter,	45 00	14 11	30 89	1,097 68

TABLE 2 — *Concluded.*

	Amount paid in.	Interest.	Paid on Principal.	Principal left unpaid.
<i>Tenth Year.</i>				
First quarter,	\$45 00	\$13 72	\$31 28	\$1,066 40
Second quarter,	45 00	13 33	31 67	1,034 73
Third quarter,	45 00	12 93	32 07	1,002 66
Fourth quarter,	45 00	12 53	32 47	970 19
<i>Eleventh Year.</i>				
First quarter,	\$45 00	\$12 13	\$32 87	\$937 32
Second quarter,	45 00	11 72	33 28	904 04
Third quarter,	45 00	11 30	33 70	870 34
Fourth quarter,	45 00	10 88	34 12	836 22
<i>Twelfth Year.</i>				
First quarter,	\$45 00	\$10 45	\$34 55	\$801 67
Second quarter,	45 00	10 02	34 98	766 69
Third quarter,	45 00	9 58	35 42	731 27
Fourth quarter,	45 00	9 14	35 86	695 41
<i>Thirteenth Year.</i>				
First quarter,	\$45 00	\$8 69	\$36 31	\$659 10
Second quarter,	45 00	8 24	36 76	622 34
Third quarter,	45 00	7 78	37 22	585 12
Fourth quarter,	45 00	7 31	37 69	547 43
<i>Fourteenth Year.</i>				
First quarter,	\$45 00	\$6 84	\$38 16	\$509 27
Second quarter,	45 00	6 37	38 64	470 64
Third quarter,	45 00	5 88	39 12	431 52
Fourth quarter,	45 00	5 39	39 61	391 91
<i>Fifteenth Year.</i>				
First quarter,	\$45 00	\$4 90	\$40 10	\$351 81
Second quarter,	45 00	4 40	40 60	311 21
Third quarter,	45 00	3 89	41 11	270 10
Fourth quarter,	45 00	3 38	41 62	228 48
<i>Sixteenth Year.</i>				
First quarter,	\$45 00	\$2 86	\$42 14	\$186 34
Second quarter,	45 00	2 33	42 67	143 67
Third quarter,	45 00	1 80	43 20	100 47
Fourth quarter,	45 00	1 26	43 74	56 73
<i>Seventeenth Year.</i>				
First quarter,	\$45 00	\$0 79	\$44 21	\$12 52
Second quarter,	—	16	12 68	—

The third table presents the course of amortization for \$2,000, \$16 per month paid, to cover taxes at \$20 per \$1,000, insurance \$6 per year, interest and principal. Buyer takes care of water rates and repairs. The total debt is paid in

twenty-three years two months. If the taxes and insurance were also paid by the purchaser in addition to \$16 per month, the house would be free of debt in fifteen years.

TABLE 3. — *Amortization Table showing the Paying Off of \$2,000 (Payments \$16 per Month, to cover 5 Per Cent. Interest, \$40 Taxes, \$6 Insurance).*

	Amount paid in.	Interest.	Taxes and Insurance.	Paid on Principal.	Principal left unpaid.
<i>First Year.</i>					
First quarter,	\$48 00	\$25 00	\$11 50	\$11 50	\$1,988 50
Second quarter,	48 00	24 86	11 50	11 64	1,976 86
Third quarter,	48 00	24 71	11 50	11 79	1,965 07
Fourth quarter,	48 00	24 56	11 50	11 94	1,953 13
<i>Second Year.</i>					
First quarter,	\$48 00	\$24 41	\$11 50	\$12 09	\$1,941 04
Second quarter,	48 00	24 26	11 50	12 24	1,928 80
Third quarter,	48 00	24 11	11 50	12 39	1,916 41
Fourth quarter,	48 00	23 96	11 50	12 54	1,903 87
<i>Third Year.</i>					
First quarter,	\$48 00	\$23 80	\$11 50	\$12 70	\$1,891 17
Second quarter,	48 00	23 64	11 50	12 86	1,878 31
Third quarter,	48 00	23 48	11 50	13 02	1,865 29
Fourth quarter,	48 00	23 32	11 50	13 18	1,852 11
<i>Fourth Year.</i>					
First quarter,	\$48 00	\$23 15	\$11 50	\$13 35	\$1,838 76
Second quarter,	48 00	22 98	11 50	13 52	1,825 24
Third quarter,	48 00	22 82	11 50	13 68	1,811 56
Fourth quarter,	48 00	22 64	11 50	13 86	1,797 70
<i>Fifth Year.</i>					
First quarter,	\$48 00	\$22 47	\$11 50	\$14 03	\$1,783 67
Second quarter,	48 00	22 30	11 50	14 20	1,769 47
Third quarter,	48 00	22 12	11 50	14 38	1,755 09
Fourth quarter,	48 00	21 94	11 50	14 56	1,740 53
<i>Sixth Year.</i>					
First quarter,	\$48 00	\$21 76	\$11 50	\$14 74	\$1,725 79
Second quarter,	48 00	21 57	11 50	14 93	1,710 86
Third quarter,	48 00	21 39	11 50	15 11	1,695 75
Fourth quarter,	48 00	21 20	11 50	15 30	1,680 45
<i>Seventh Year.</i>					
First quarter,	\$48 00	\$21 01	\$11 50	\$15 49	\$1,664 96
Second quarter,	48 00	20 81	11 50	15 69	1,649 27
Third quarter,	48 00	20 62	11 50	15 88	1,633 39
Fourth quarter,	48 00	20 42	11 50	16 08	1,617 31
<i>Eighth Year.</i>					
First quarter,	\$48 00	\$20 22	\$11 50	\$16 28	\$1,601 03
Second quarter,	48 00	20 01	11 50	16 49	1,584 54
Third quarter,	48 00	19 81	11 50	16 69	1,567 85
Fourth quarter,	48 00	19 60	11 50	16 90	1,550 95

TABLE 3 — Continued.

	Amount paid in.	Interest.	Taxes and Insurance.	Paid on Principal.	Principal left unpaid.
<i>Ninth Year.</i>					
First quarter,	\$48 00	\$19 39	\$11 50	\$17 11	\$1,533 84
Second quarter,	48 00	19 17	11 50	17 33	1,516 51
Third quarter,	48 00	18 96	11 50	17 54	1,498 97
Fourth quarter,	48 00	18 73	11 50	17 77	1,481 20
<i>Tenth Year.</i>					
First quarter,	\$48 00	\$18 52	\$11 50	\$17 98	\$1,463 22
Second quarter,	48 00	18 29	11 50	18 21	1,445 01
Third quarter,	48 00	18 06	11 50	18 44	1,426 57
Fourth quarter,	48 00	17 83	11 50	18 67	1,407 90
<i>Eleventh Year.</i>					
First quarter,	\$48 00	\$17 60	\$11 50	\$18 90	\$1,389 00
Second quarter,	48 00	17 36	11 50	19 14	1,369 85
Third quarter,	48 00	17 12	11 50	19 38	1,350 47
Fourth quarter,	48 00	16 88	11 50	19 62	1,330 85
<i>Twelfth Year.</i>					
First quarter,	\$48 00	\$16 64	\$11 50	\$19 86	\$1,310 99
Second quarter,	48 00	16 39	11 50	20 11	1,290 88
Third quarter,	48 00	16 14	11 50	20 36	1,270 52
Fourth quarter,	48 00	15 88	11 50	20 62	1,249 90
<i>Thirteenth Year.</i>					
First quarter,	\$48 00	\$15 62	\$11 50	\$20 88	\$1,229 02
Second quarter,	48 00	15 36	11 50	21 14	1,207 88
Third quarter,	48 00	15 10	11 50	21 40	1,186 48
Fourth quarter,	48 00	14 83	11 50	21 67	1,164 81
<i>Fourteenth Year.</i>					
First quarter,	\$48 00	\$14 56	\$11 50	\$21 94	\$1,142 87
Second quarter,	48 00	14 29	11 50	22 21	1,120 66
Third quarter,	48 00	14 01	11 50	22 49	1,098 17
Fourth quarter,	48 00	13 73	11 50	22 77	1,075 40
<i>Fifteenth Year.</i>					
First quarter,	\$48 00	\$13 44	\$11 50	\$23 06	\$1,052 34
Second quarter,	48 00	13 15	11 50	23 35	1,028 99
Third quarter,	48 00	12 86	11 50	23 64	1,005 35
Fourth quarter,	48 00	12 57	11 50	23 93	981 42
<i>Sixteenth Year.</i>					
First quarter,	\$48 00	\$12 27	\$11 50	\$24 23	\$957 19
Second quarter,	48 00	11 96	11 50	24 54	932 65
Third quarter,	48 00	11 66	11 50	24 84	907 81
Fourth quarter,	48 00	11 35	11 50	25 15	882 66
<i>Seventeenth Year.</i>					
First quarter,	\$48 00	\$11 03	\$11 50	\$25 47	\$857 19
Second quarter,	48 00	10 71	11 50	25 79	831 40
Third quarter,	48 00	10 39	11 50	26 11	805 29
Fourth quarter,	48 00	10 07	11 50	26 43	778 86

TABLE 3 — *Concluded.*

	Amount paid in.	Interest.	Taxes and Insurance.	Paid on Principal.	Principal left unpaid.
<i>Eighteenth Year.</i>					
First quarter,	\$48 00	\$9 74	\$11 50	\$26 76	\$752 10
Second quarter,	48 00	9 40	11 50	27 10	725 00
Third quarter,	48 00	9 06	11 50	27 44	697 56
Fourth quarter,	48 00	8 72	11 50	27 78	669 78
<i>Nineteenth Year.</i>					
First quarter,	\$48 00	\$8 37	\$11 50	\$28 13	\$641 65
Second quarter,	48 00	8 02	11 50	28 48	613 17
Third quarter,	48 00	7 66	11 50	28 84	584 33
Fourth quarter,	48 00	7 30	11 50	29 20	555 13
<i>Twentieth Year.</i>					
First quarter,	\$48 00	\$6 94	\$11 50	\$29 56	\$525 57
Second quarter,	48 00	6 57	11 50	29 93	495 64
Third quarter,	48 00	6 20	11 50	30 30	465 44
Fourth quarter,	48 00	5 82	11 50	30 68	434 66
<i>Twenty-first Year.</i>					
First quarter,	\$48 00	\$5 43	\$11 50	\$31 07	\$403 59
Second quarter,	48 00	5 04	11 50	31 46	372 13
Third quarter,	48 00	4 65	11 50	31 85	340 18
Fourth quarter,	48 00	4 25	11 50	32 25	307 93
<i>Twenty-second Year.</i>					
First quarter,	\$48 00	\$3 85	\$11 50	\$32 65	\$275 28
Second quarter,	48 00	3 44	11 50	33 06	242 22
Third quarter,	48 00	3 03	11 50	33 47	208 75
Fourth quarter,	48 00	2 61	11 50	33 89	174 86
<i>Twenty-third Year.</i>					
First quarter,	\$48 00	\$2 19	\$11 50	\$34 31	\$140 55
Second quarter,	48 00	1 76	11 50	34 74	105 81
Third quarter,	48 00	1 32	11 50	35 18	70 63
Fourth quarter,	48 00	88	11 50	35 62	35 01
<i>Twenty-fourth Year.</i>					
First quarter,	—	\$0 44	\$11 50	\$46 95	—

Description and Development of Tracts selected.

In a previous report¹ this Commission stated briefly some reasons why an experiment in making wholesome homes more available to low-paid workers ought to be conducted in some manufacturing city, aside from Boston, where there are many such workers. Lowell is situated 26 miles from Boston, with frequent and convenient communication both by railroad and

¹ Third annual report, p. 88.

by electric car service. Its population by the 1915 census was 107,987, area 9,098 acres, density of population 11.8 persons per acre. In the manufacturing establishments of Lowell in 1914 there was an average of 29,904 persons employed, with an aggregate pay roll of \$14,001,930, or \$468.23 per worker per year, or \$9 per week. The number of workers and the rates of wages have increased, and the conditions have changed considerably since the beginning of the European war; and with the growing population and higher cost of living, the difficulty of obtaining wholesome homes is rapidly increasing rather than decreasing.

Lowell has not afflicted itself with tenements quite so badly as have some other cities of the Commonwealth, the average number of persons per dwelling being 7.1, as compared with 11.9 in Holyoke, 10.9 in Fall River, 9.7 in Worcester, 9.1 in Boston and Chelsea, 8.4 in New Bedford and 8.2 in Lawrence. Many manufacturing cities have a smaller proportion of single-family houses than Lowell, and a larger proportion of tenements. Unfortunately some of the Lowell houses were built in rows, some single-family houses were crowded too closely together, and many have been allowed to fall into bad repair. Some of the tenements are of surprisingly bad types, overcrowded, insanitary and unclean. Descriptions of conditions in and about them in 1912 are revolting in the extreme.¹ Rents are high but not exorbitant when compared with other cities of similar size and character.

The density of population, 11.8 persons per acre, is low enough to indicate that there are considerable amounts of available unoccupied land within city limits. Herewith is presented a map (H), showing in black, by the last available data, the vacant lands of Lowell.

The central portion of the city south of the Merrimack River is for some distance quite fully covered with buildings, unused lots appearing only occasionally here and there. To the east, west and south of this central portion are seen frequent idle lots, which finally merge into large tracts of unused land. About one-half of the available territory of that part

¹ "The Record of a City," by Geo. F. Kenngott, pp. 57-59; third annual report, Homestead Commission, pp. 34-38.

VACANT PROPERTY MAP OF THE CITY OF LOWELL

ARTHUR C. COMEY,
CITY PLANNER



of the city south of the river is unused. North of the river idle lands predominate, there being only two settlements of any considerable size. There appears to be at least 4,000 acres unused. The asking prices of these vacant lands suitable for building purposes within city limits varies from \$450 to \$5,000 per acre.

The distribution of people throughout the city is of course very uneven. A table showing density of population by wards¹ gives wide variations. Wards 7, 8 and 9 have each less than 5 persons per acre, while Ward 2 houses an average of 61 persons on each acre within its limits. The density of population is much greater in such parts of the city as "The Acre," "Little Canada," some of the foreign quarters and places where block tenements have been built; and this density is further greatly intensified by the large portions of land given up to factories and other industrial and business uses.

Consideration of the foregoing conditions led the Homestead Commission to select Lowell as a suitable place to make detailed plans, in response to the apparent desire of the General Court of 1916 for the actual development of a specified piece of ground. The Commission had no authority and no funds to take options on land, so the prices stated for December, 1916, are in no way binding for any other time; nor has the Commission committed itself or the Commonwealth to any obligation whatsoever.

Three parcels of land were selected for examination and study: one on Parker Street within the city, another at North Billerica in the Billerica Garden Suburb, and a third in Dracut.

¹ *Distribution of Population in Lowell.*

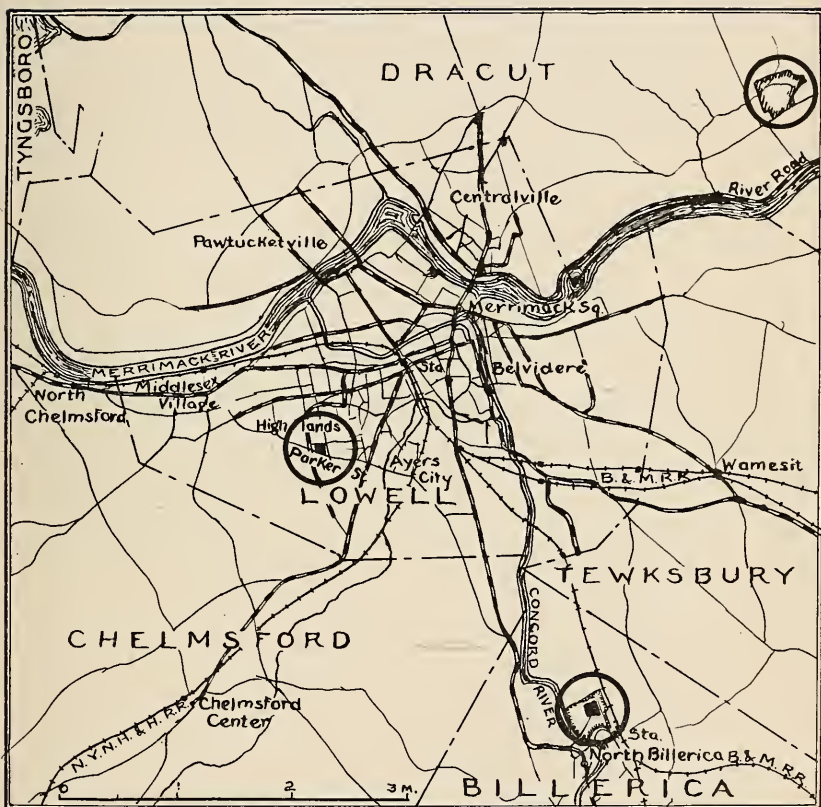
	Acres.	1915 Population.	Number of Persons per Acre.
The city,	9,098	107,978	11.8
Ward 1,	750	9,560	12.7
Ward 2,	224	13,699	61.1
Ward 3,	400	12,367	30.9
Ward 4,	184	9,649	52.4
Ward 5,	165	9,794	59.3
Ward 6,	506	20,697	40.9
Ward 7,	2,423	10,721	4.4
Ward 8,	2,214	10,803	4.8
Ward 9,	2,232	10,688	4.7

The last two are reached by street cars on a 5-cent fare, twenty to thirty minutes' ride, and short walk. Their location in relation to the central portion of Lowell is shown on the accompanying map.

DESCRIPTION AND DEVELOPMENT OF URBAN (LOWELL) TRACT.

Members of the Commission personally investigated many tracts in Lowell to determine the one most suitable for the urban type of development proposed by the Homestead Commission. Certain of these tracts, though very cheap and within reasonable distances, were either so cut up by previous sales of lots or so far removed from the factory section that they were not deemed to be available. One or two tracts which were reasonable in price and close to the heart of the city were too small for a satisfactory demonstration; for unless a group of dwellings can be built, no special community value can be created.

The tract chosen for detailed plans is intermediate between the small idle plots of the central portion of the city and the larger vacant tracts in the suburbs. It is in the Highlands district, so called, on Parker Street, near the corner of Stevens Street, and runs back to B Street. The Stevens Street car line passes within 400 feet of the property, and gives access directly to the center of the city and many of the mills, by way of the railroad station. Free transfers permit change to other car lines throughout the city. On this line efficient service is maintained with a good type of rolling stock. The nearest school is 1,000 feet to the south, on Wilder Street, and there are churches at but slightly greater distances. One large knitting mill is 1,500 feet northeast. Another group of industries is 1 mile to the north, reached by School or Chelmsford streets. The railroad station is about $1\frac{1}{4}$ miles away, just off Chelmsford Street, and the business center, Merrimack Square, is not quite 2 miles to the northeast. The present type of development in the Highlands is such as to insure the value of the lots being preserved for a long time. At either end of the property numerous houses of distinctly good quality for the better-paid workmen or artisans have been built within the last two or three years. New building work shows



Car-lines: ————

Map showing location in relation to the center of Lowell of 3 tracts (enclosed in circles) considered by the Commission.



J.— View of lot on Parker Street, Lowell, for which development plans were made.

a demand for houses in the locality. The business and residential development has been greatest to the southwest of the city, so the tract lies well within the area in which the workmen are seeking homes. This factor is of particular importance in insuring the success of the urban tract, as however desirable a cheaper tract might be, if it was not in demand by workmen it might be much more slowly taken up. Other lots closer to the heart of the city might have been selected for the same price, but they would have had the disadvantage of smaller area, disagreeable surroundings or low type of improvements. Moreover, the area of this tract is just about the amount that the Commission deemed suitable for a demonstration on urban land. At a density of eight families per acre gross (including half of external streets), about 32 families would be housed. This is felt to be a sufficient number to produce a distinct community type.

The tract consists of a slightly depressed plateau on the highest portion of the Highlands. North of B Street, Harris Avenue, which begins directly opposite the tract, slopes downward toward the north, and on the other end of the property Parker Street slopes downward to the southeast. Through the center of the property a street will run at a somewhat lower grade than the lots abutting it on either side, and will insure thorough drainage and favorable locations of houses. The drop from B Street to Parker Street is about 5 feet, so that a sewer can readily be constructed leading into the sewer in Parker Street. The fact that the lot has streets on the two short sides only is a distinct advantage for the purposes of the Commission's demonstration, as most of the lots could be made to face on a new street running through the tract. The price at which this property was offered, 5 cents per foot, was considered reasonable for the location.

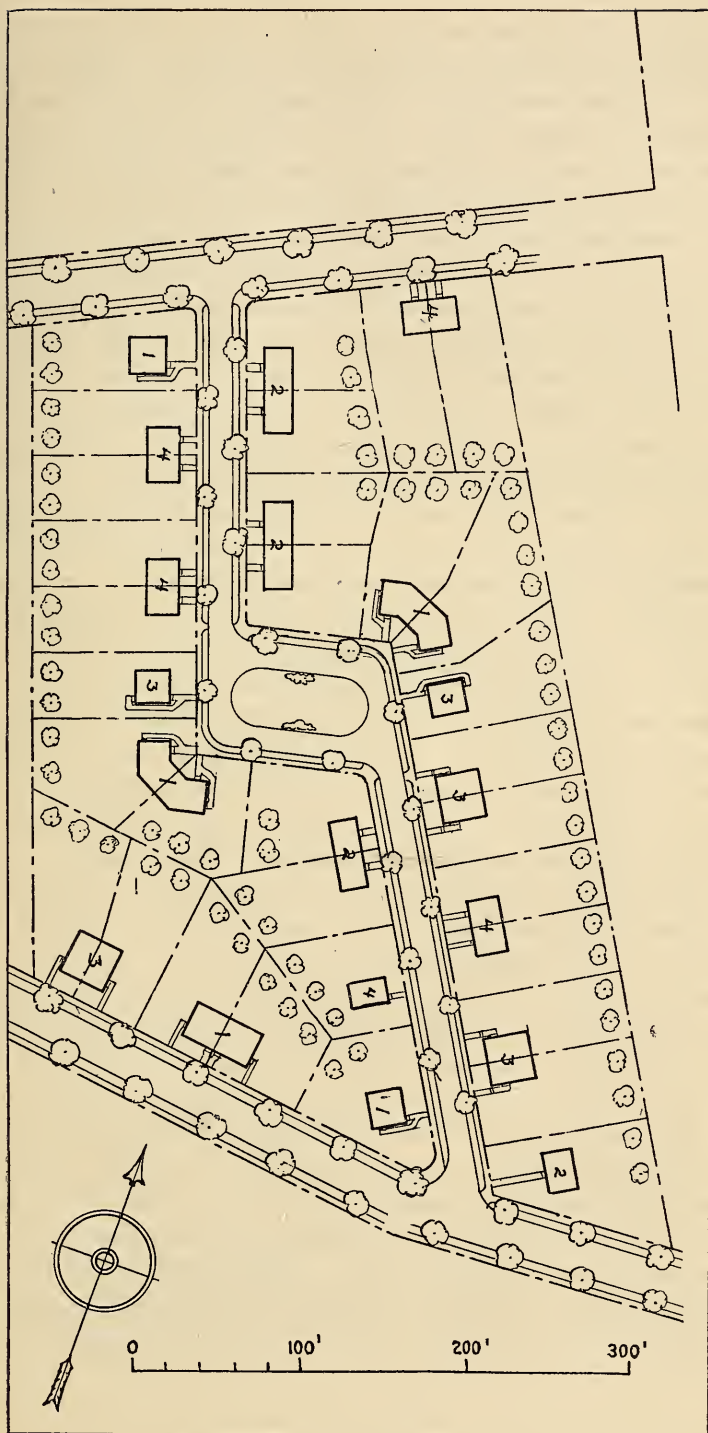
The tract was evidently formerly an open pasture. A number of bowlders on the ground can be broken up and used for foundation stone, when the area is cleared for building. Aside from this there are a few rotting stumps and some small brush, which can be readily cleared. The property is roughly rectangular with a frontage of 420 feet on Parker Street and 270 feet on B Street. The east boundary of the property is 600 feet long, the west boundary 395 feet.

For any particular piece of land, its peculiar conditions, such as location and price, will prescribe the density of families per acre best suited for it. The more expensive the land the greater the density per acre, although this increase in density does not occur at a correspondingly rapid rate. A density of eight lots per acre gross means lots of approximately 4,600 square feet. On property worth 5 cents a square foot in the rough, lots of 4,600 square feet are about all that can well be afforded in connection with the house. Some variation in size is, however, deemed desirable, so that those who care to maintain a larger garden than the average may do so, while those who do not care to undertake the average size garden may take one smaller. The smallest lots are 40 by 100 feet, 4,000 square feet. The largest lot has 5,500 square feet.

Obviously, the narrower the lot the smaller the cost per lot for street construction and other public improvements. In general, lots 40 to 50 feet front by 100 feet deep appear to give the greatest usefulness and corresponding economy of street improvements. If the lot is less than 40 feet wide the houses are brought so close together as to deprive them of a certain amount of light, air and privacy. In fact, on lots as narrow as 40 feet there is greater privacy to be obtained from the semi-detached or "double" houses than from single houses, inasmuch as there are no windows on the party wall, and the windows in the outer side walls are considerably farther away from other windows facing them. There are, furthermore, a number of economies in the semi-detached house, particularly the saving of one wall, and the greater usefulness of the yard due to the house being located on one side of it instead of in its center.

The Lowell tract was too wide for a single street through the center with lots facing it, as these lots would be too deep. It was therefore necessary to cut up the property with one or more streets in such a way as to prevent this. Furthermore, through traffic crossing such a community as this should be discouraged by at least one break in each street. However, through access is desirable both for the convenience of the dwellers in the community and safety in case of fire or other danger. To meet these conditions the street planned on the

Plan 8.— Lay-out proposed for Parker Street tract.



Arthur C. Conroy.

property at first passes along one side of it at about a distance of 100 feet from the boundary line, then turns across to the other side and continues 100 feet from the other side line. In a tract of this size no large park or playground is practical, but it was felt that a small public open space should be reserved to make the property more attractive and provide a place for the small children. Therefore the street in passing across the property from one side to the other was widened to 85 feet for the short distance of 90 feet, permitting an attractive green to be introduced. Around this little square there are unusually interesting sites for dwellings. Practically all lot lines were made perpendicular to the streets for a distance of 40 feet back, so that wherever semi-detached houses are to be built they may be made parallel to the street.

This interior street, which is to carry relatively little traffic, has been made but 30 feet wide, with a pavement 16 feet wide, sufficient for vehicles going in opposite directions to pass each other easily. This narrow type of pavement is preferable on minor streets to the wide pavements commonly in vogue, and owing to its comparatively small area it can be made of bituminous macadam, a better type than that now generally used in such localities. A 4-foot sidewalk along the property line is wide enough to permit of two persons walking abreast. It leaves room for a strip of grass 3 feet wide between the sidewalk and the pavement, in which width trees can be grown satisfactorily. The houses are set back from the street line a minimum distance of 10 feet, making them at least 50 feet distant from buildings across the street. A few of the houses are placed 15 feet back, to give variety in the street view. No houses except semi-detached houses are built within 10 feet of the lot line, so that nowhere are walls with windows less than 20 feet apart.

After the property is surveyed, properly marked and cleared of stones, stumps, etc., the top soil will be stripped and saved for future use, and the material from house cellars will be used in grading. While the houses themselves are being built sewers and water pipe will be laid. The roadways will then be constructed of bituminous macadam, and sidewalks and house walks built of asphaltic concrete. This material, like that of

the roads, gives a superior type of waterproof surface which quickly dries out after rains and may be kept in as good condition during the winter as in summer. Its cost is less than the cement concrete walks and its texture is less harsh. Along the street young trees will be planted. As the two rows of trees will be but 20 feet apart, the trees in each row should be set to alternate with those of the other row, so that with a space of 60 feet between trees in each row the distance from tree to tree will be 35 feet. Top soil will be replaced over all areas to be planted and grass sown on those areas not to be given over to gardens. In the rear, simple wire fences will prevent through passage. Between the lots no such fences appear to be needed.

There follows a tabulated statement of the estimates of the costs of developing this tract.

TABLE 4. — *Estimated Costs of Development, Parker Street Tract, Lowell.*

I. Land:—

1. Total, 3.72 acres at \$2,178 (162,160 square feet at 5 cents), \$8,108 00
(a) Including one-half external streets, 178,100 sq. ft.
2. Area in streets, 23,610 square feet, equals 14.6 per cent.
(a) Including one-half external streets, 37,550 square feet, equals 21.1 per cent.
3. Area in lots, 138,550 square feet.

II. Improvements:—

1. Survey and bounds, 3.72 acres at \$20, . . . \$74 40
2. Clearing 3.72 acres at \$40, . . . 148 80
3. Sewer pipe, 6-inch, 1,209 linear feet at 50 cents, 604 50
4. Sewer pipe, 8-inch, 410 linear feet at 65 cents, . 266 50
5. Manholes and catch basins, 6 at \$50, . . . 300 00
6. Drain inlets, 2 at \$15, . . . 30 00
7. Water pipe, $\frac{3}{4}$ -inch, 346 linear feet at 50 cents, . 173 00
8. Roadways, 1,399 square yards at \$1.10, . . . 1,538 90
9. Curbs, 105 linear feet at 75 cents, . . . 78 75
10. Sidewalks, 881 square yards at 80 cents, . . . 704 80
11. House walks, 181 square yards at 80 cents, . . 144 80
12. Street trees, 33 at \$1.50, . . . 49 50
13. Fences (in rear), 1,400 linear feet at 25 cents, . 350 00
14. Grass areas, 14,135 square yards at 3 cents, . . 424 05

\$4,888 00

15. Overhead expense, 15 per cent., . . . 733 20

Total cost of improvements, . . . 5,621 20

Total per house, \$175.66.

16. Main water supply — if not by city add \$450.

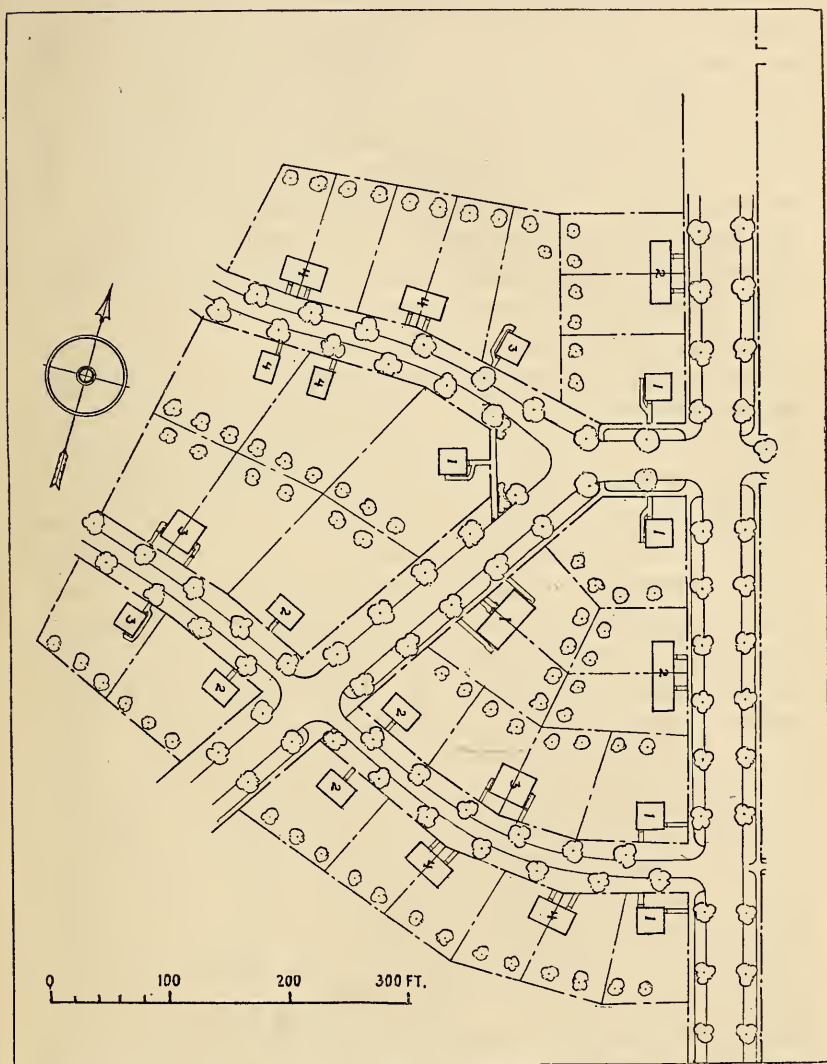
III. Houses (estimated), 32 at \$1,650, . . . 52,800 00

Total cost, . . . \$66,529 20

DESCRIPTION AND DEVELOPMENT OF SUBURBAN (BILLERICA)
TRACT.

The second tract considered, the suburban type of property, is located in North Billerica, 21 miles from Boston and 6 miles from the center of Lowell, which is reached in twenty minutes on the trolley or in ten minutes by infrequent train service. The large new Boston & Maine Railroad car shops are, however, less than a mile from the tract, and two textile mills are within 1,200 feet of it. The property is almost entirely flat and requires very little grading or clearing. North Billerica railroad station is about 800 feet from the property. A temporary foot bridge, later to be replaced by a permanent road bridge, will lead directly to the village center of North Billerica and the electric cars, one-third of a mile away. At present the distance by road is slightly greater. School, meeting hall and churches are also easily accessible. The property is a portion of the Billerica Garden Suburb now being developed by a limited dividend company with a good quality of workmen's houses, the smallest of which are practically as low in cost as those proposed to be put up by the Commission. The property is already laid out on a comprehensive plan, with main arteries 60 feet wide, one of which, Letchworth Avenue, passes along the site chosen by this Commission. Secondary streets for residential use are only 40 feet wide. The property selected is very roughly rectangular, with a frontage on Letchworth Avenue of 1,310 feet. Back from this run two residential streets and a diagonal secondary thoroughfare. The property's depth from Letchworth Avenue varies from 1,270 to 670 feet. It is 890 feet wide at the back. The total area is 6.42 acres. There is considerable range in size of lots, as more latitude could be given in determining this than in the urban tract. The price at which this tract can be obtained, \$300 per acre, makes the land value per lot very small. Improvements suitable to this suburban type of locality would, however, make the cost of improved lots too great if they are made unduly large. For this reason an average of 5 lots per gross acre was planned. Lots vary from 4,500 to 12,000 square feet in area. The larger lots are given a wider

frontage in proportion to their depth than in the urban tract, as it is felt that at some future time they may possibly be



Plan 9. — Lay-out proposed for Billerica tract.

Arthur C. Comey.

cut into two. Improvements designed for the suburban area are of a distinctly less expensive type than those for the urban tract. Owing to the much greater length of the streets in proportion to the number of lots, an expensive type of pave-

ment is out of the question. With the excellent drainage that the sandy soil provides, a cinder surface road has been found satisfactory. Half the width of the 32-foot Letchworth Avenue roadway will be surfaced along the property. The secondary thoroughfare will have a cinder surface roadway 24 feet wide, and the remaining two streets 16-foot roadways, — enough for local traffic. Along Letchworth Avenue and on one side of the secondary thoroughfare a 4-foot cinder walk will be constructed. On the minor streets the light traffic will not destroy the cinder surface of the roadway so much as to render it unfit for walking, so no sidewalk will be constructed along these streets for the present.

The secondary streets are laid out with long, sweeping curves conforming to the requirements of the area chosen, and, while not inviting through traffic, permit through access and give constantly changing vistas. To save in the cost of surveying, the lot lines are made straight, as the slight difference in area due to this is negligible in low-priced property. Houses, as in the urban tract, are for the most part set 10 feet back from the street, making a minimum distance between house fronts of 60 feet. A greater distance back would make improvements more expensive, and would cut up unnecessarily the space reserved for gardening. As the soil is very pervious, surface drainage will not need to be taken care of at all, and cesspools will be suitable for disposing of the house drainage for the present. To insure convenient and regular cleaning of these cesspools, which is necessary when the houses are connected with a water system, they will be placed in the grass space along the side of the street. Three or four houses can be connected to each cesspool. In both tracts the main water supply will be provided by the municipality under an annual return guarantee. In the estimates, however, a separate figure has been given to facilitate comparison with cases where this is not certain. House walks, which are comparatively short, may be of the relatively expensive tar concrete which is proposed to be used in Lowell. Trees will be placed along the roads, and the grass areas within the street lines made into lawns. The lots themselves, however, will be simply smoothed and left to the care of the occupant.

TABLE 5. — *Estimated Costs of Development, Billerica Tract.*

I. Land:—	
1. Total, 6.42 acres at \$300 (279,600 square feet at .69 cent)	\$1,926 00
2. Area in streets, 82,700 square feet, equals 29.6 per cent.	
3. Area in lots, 196,900 square feet.	
II. Improvements:—	
1. Survey and bounds, 6.42 acres at \$15, . . .	\$96 30
2. Clearing 6.42 acres at \$5, . . .	32 10
3. Sewer pipe, 6-inch, 1,073 linear feet at 35 cents, . . .	375 55
4. Cesspools, 9 at \$60, . . .	540 00
5. Water pipe, $\frac{3}{4}$ -inch, 252 linear feet at 40 cents, . . .	100 80
6. Roadways, 4,221 square yards at 18 cents, . . .	759 78
7. Sidewalks, 590 square yards at 12 cents, . . .	70 80
8. House walks, 155 square yards at 80 cents, . . .	124 00
9. Street trees, 64 at \$1, . . .	64 00
10. Grass areas, 4,056 square yards at 5 cents, . . .	202 80
	<hr/>
	\$2,366 13
11. Overhead expense, 15 per cent., . . .	354 92
	<hr/>
Total cost of improvements, . . .	2,721 05
Total per house, \$80.25.	
12. Main water supply — if not by town, add \$1,000.	
III. Houses (estimated), 31 at \$1,600, . . .	49,600 00
	<hr/>
Total cost, . . .	\$54,247 05

DESCRIPTION OF SUBURBAN (DRACUT) TRACT.

For the third tract no plans or estimates were made, as funds were not available. A plan would have been quite expensive and it would show but few features not already covered. The tract lies on the old Lowell and Lawrence road, which up to a few years ago was the main road between these two cities. With the completion of the river boulevard, however, through traffic has almost entirely deserted this road. The distance to the river road and car line is one-half mile by Varnum Avenue, a cross street open to traffic, but as yet unimproved. The tract lies $3\frac{1}{2}$ miles from the center of Lowell and somewhat over 5 miles from Lawrence. A 5-cent car fare takes the passenger to either city. A number of motor busses also operate along the boulevard. At the corner of Varnum Avenue and the boulevard is a small store and a growing community of inexpensive homes. Opposite the tract are two small houses, and at one corner is an old farmstead. North of the tract are a number of farms. The entire property consists of two tracts adjoining each other, with a total area of 210 acres. The tract shown on the location map,

page 49, contains 96 acres, and lies largely on a low hillside sloping to the north. Along the north side of the property runs a small brook with banks in places somewhat marshy, but for the most part flanked by arable land. The hillsides are dry and gravelly. They are generally covered with brush which would need removal at least from considerable portions before the property could be used. The price, \$50 an acre, at which this tract was held, would make it possible to acquire and improve and sell for farming at \$150 an acre. Local estimates of the cost of putting it into hay land were somewhat under this figure.

The plan under which this property could be developed would call for a certain number of main thoroughfares with one or more local centers where ultimately stores, school, etc., could be built. The remainder of the streets would be residential. They would need to be cleared and graded and a narrow cinder surfacing put along the center to insure easy access at all times of the year. It seems likely that the clearing would not need to be extended over the entire area, but might be confined to strips, say, 100 feet back from the roads, which would be from 400 to 500 feet apart. The remainder of each lot could then be cleared by the occupant. This sort of improvement would be very much cheaper than attempting to clear the whole property at the outset. A large number of little farms ranging from a half acre to 5 acres in extent could thus be provided at small cost. If no car service were provided by the street railway company, as soon as a reasonable number of people were living on the tract a motor line could be operated from Lowell through the tract to Lawrence. During the times of light passenger traffic the motor could be used to transport surplus vegetables and supplies. In this way transportation could be satisfactorily taken care of. This rural type of development would be distinctly lower in cost than the suburban type, with larger returns from the gardens.

PLANS AND DESCRIPTION OF THE HOUSES PROPOSED.

The houses planned for the tracts at Lowell and North Billerica are similar, as the needs do not vary materially. However, as the lots are necessarily narrower at Lowell, a

greater proportion of semi-detached houses would be built there than in the suburban tract. Herewith are submitted a series of plans for houses within the cost of \$2,000 determined upon by the Commission, designed by the firm of Kilham & Hopkins, architects, and Arthur C. Comey of this Commission. These plans were made after study of the tracts of ground selected in and near Lowell. The specifications call for wooden frame houses with wooden exteriors and fire-resisting roofs. Bids upon more durable forms of construction will also be sought, however, as it is hoped that some such construction may prove to be as cheap as wood; but as wood is at present the standard in Massachusetts for workmen's houses, bids for building in this material were deemed to be at this time the most desirable. Bids were sought in October and November, 1916, when the increase in prices was possibly complete. Builders appeared unwilling to submit figures, especially in the uncertainty regarding prices, unless sure the houses would be erected at once. Only one bidder submitted figures, which ranged from \$1,020 to \$1,694 per house.¹

The type of construction proposed is the same for all the houses, though in practice several methods may actually be used. The floors and walls of the cellar are to be of concrete, chimney of brick. The house is to be of frame covered with wooden shingles on the sides and asphalt shingles on the roof. These, while not absolutely unburnable, are suitable for the conditions in the type of development proposed. They will not catch fire from brands falling upon them from external fires, nor will they be carried by the wind and ignite other houses in case the house burns. Wooden shingles for the walls are but little more expensive than clapboards, and in economy in painting quickly repay the slight extra cost. Ceilings and inside walls are to be plastered with two coats. Floors and inside finish are to be of southern yellow pine.

FOUR TYPES OF HOUSES.

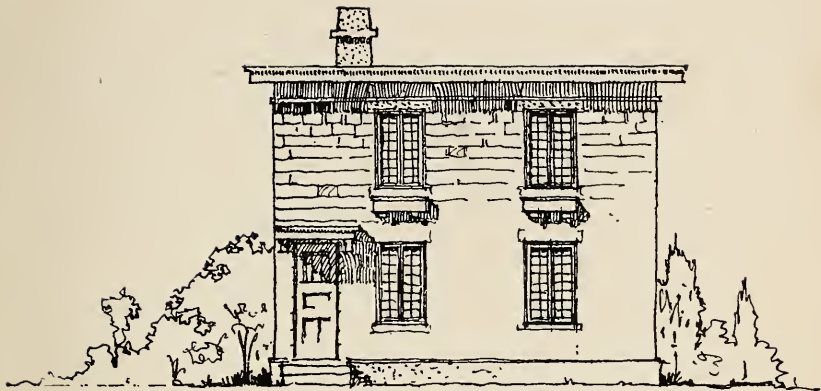
A considerable range in types of houses was felt to be desirable, so as to meet a variety of needs. However, it is believed that no family consisting of parents with children of

¹ For complete bids and specifications see schedule, page 74.

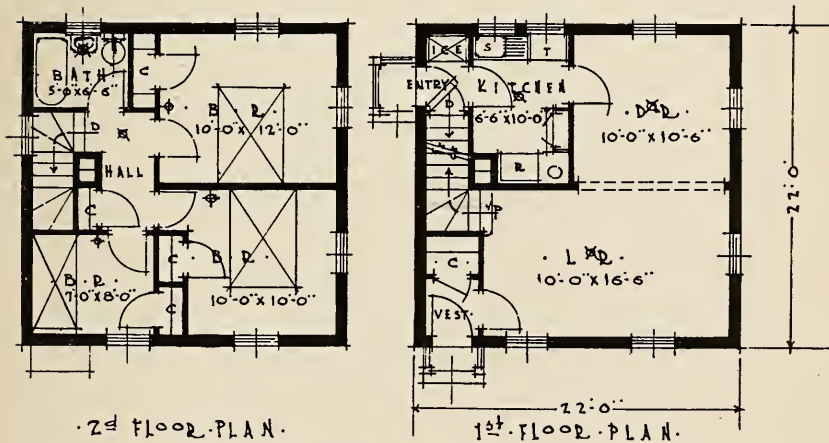
both sexes should have less than three bedrooms, one of which should be quite large, one of medium size and the other, perhaps, small; also a bathroom should be provided. Inasmuch as these requirements demand considerable space, it was felt that none of the houses should have materially greater provision in this respect. The living portion of the house should contain living room and kitchen, but if the door between these rooms is wide, the rooms will be more serviceable and can be made smaller than if they were entirely separate. This provision, however, is not absolutely necessary, and where extreme economy must be practiced a single living room with a kitchen alcove may be the minimum provision. Each house should have a cellar reached through an entry in which there is space for an ice box. Each bedroom should have a closet, and there should be at least one closet near the outside door. In addition to the variation in the space and accommodations provided, the houses may be either detached or semi-detached, according to their location. The semi-detached house saves a certain amount in cost.

To meet this range in provision four types of houses have been designed, each type being shown in both detached and semi-detached, making eight separate plans.

Type 1, detached. — Shown by two plans, Plans 10 and 11. The buildings are 22, and 23 feet square, respectively. The larger of these is the largest and most expensive type of house proposed. One enters from the street through a vestibule into a living room of ample size. Leading out of this through a broad opening is a small dining room sufficient for the usual needs of the family. However, if a longer table should occasionally be desired it can be extended through into the living room for such special occasions. From the dining room double doors, normally open, lead into a small kitchen, designed simply for preparing the food. On one side are range and cabinet for utensils; on the other the sink and work table. The broad doorway, without sills, makes it possible to serve meals with a minimum effort, as the dining-room table is no farther away than a table might be in a large kitchen. It is also easier for the housewife to watch her children in other parts

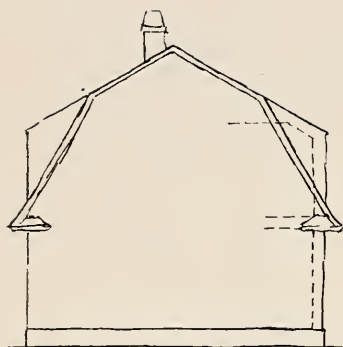


Front Elevation.

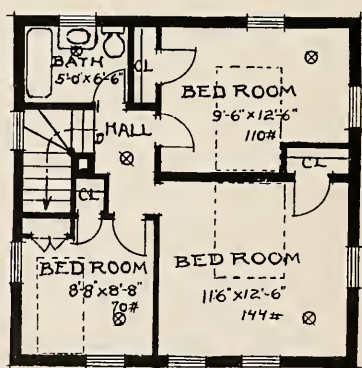
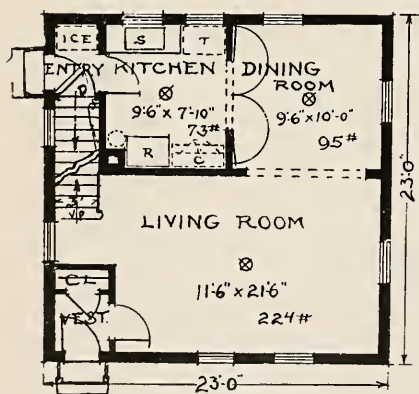


Plan 10. — Type 1, detached.

Kilham & Hopkins.

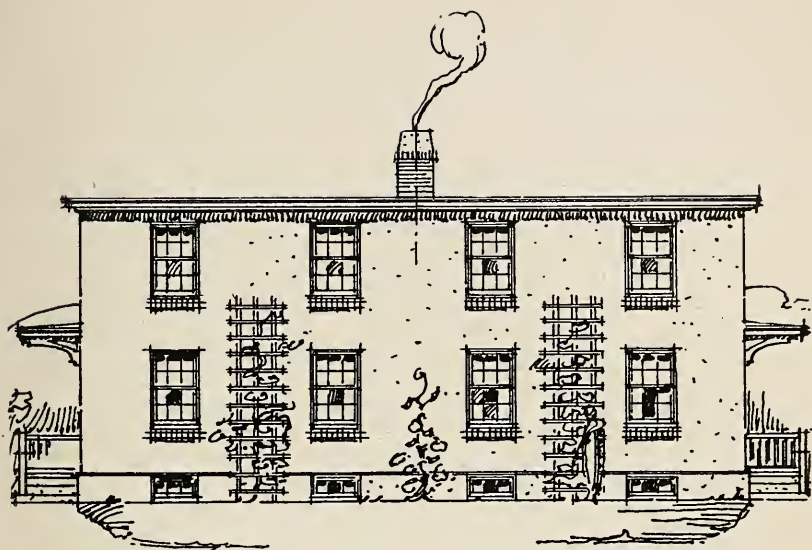


Elevation.

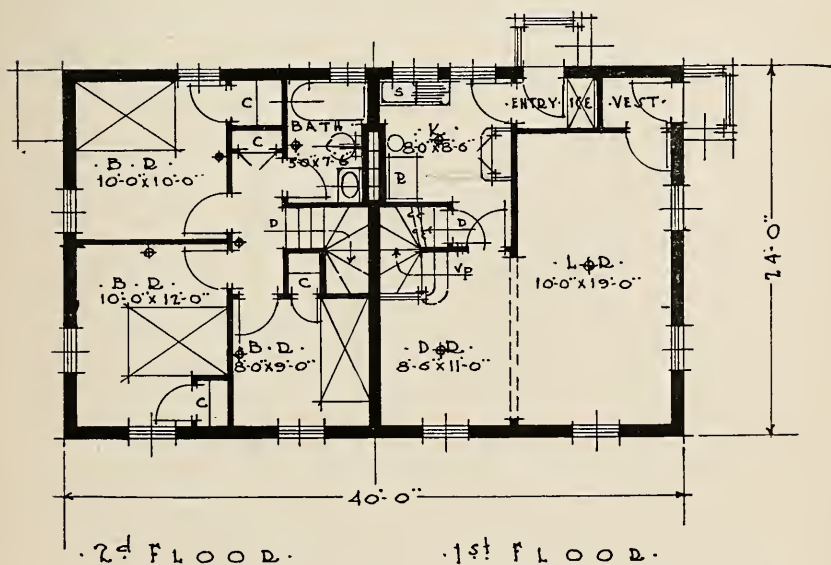


Plan 11.— Type 1, detached.

Arthur C. Comey.



· FRONT · ELEVATION ·



· 2^d FLOOR ·

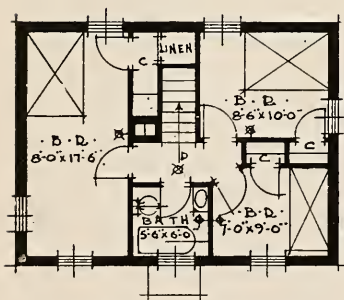
· 1st FLOOR ·

Plan 12. — Type 1, semi-detached.

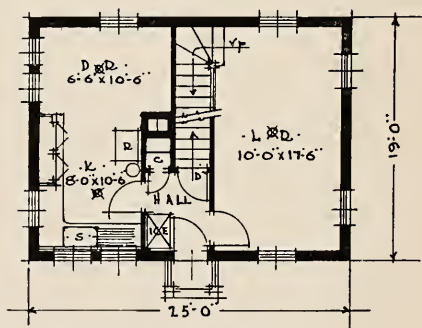
Kilham & Hopkins.



• FRONT • ELEVATION •



2^d FLOOR.



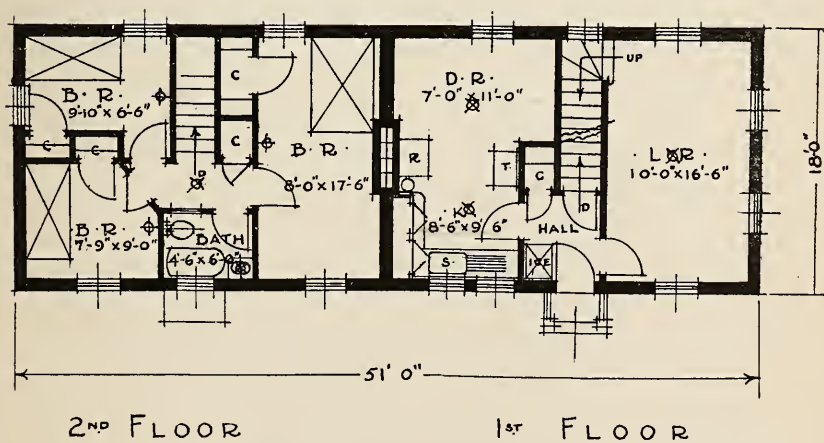
1st FLOOR.

Plan 13. — Type 2, detached.

Kilham & Hopkins.

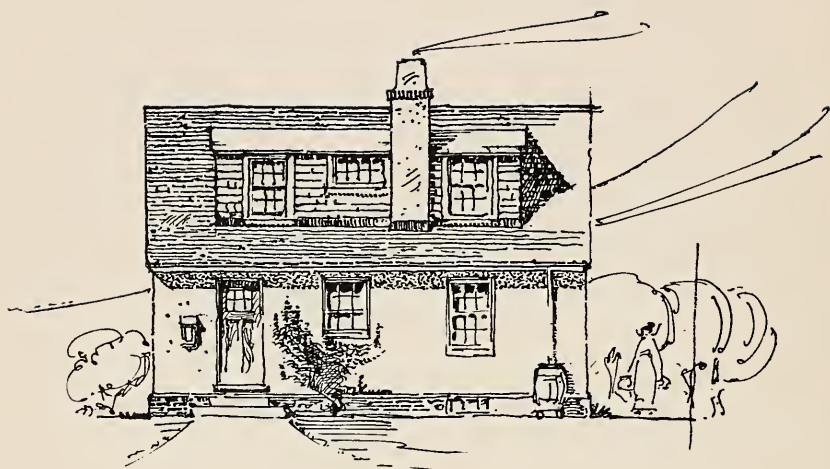


Front Elevation.

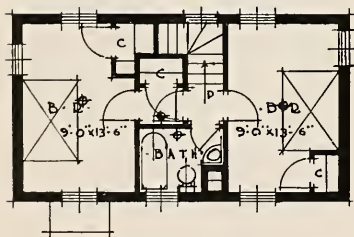


Plan 14. — Type 2, semi-detached.

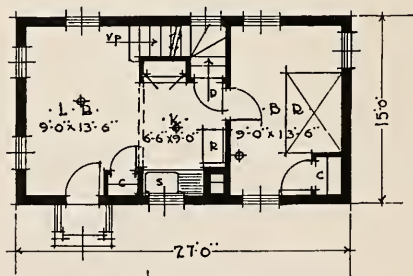
Kilham & Hopkins.



Front Elevation.



2^d FLOOR.



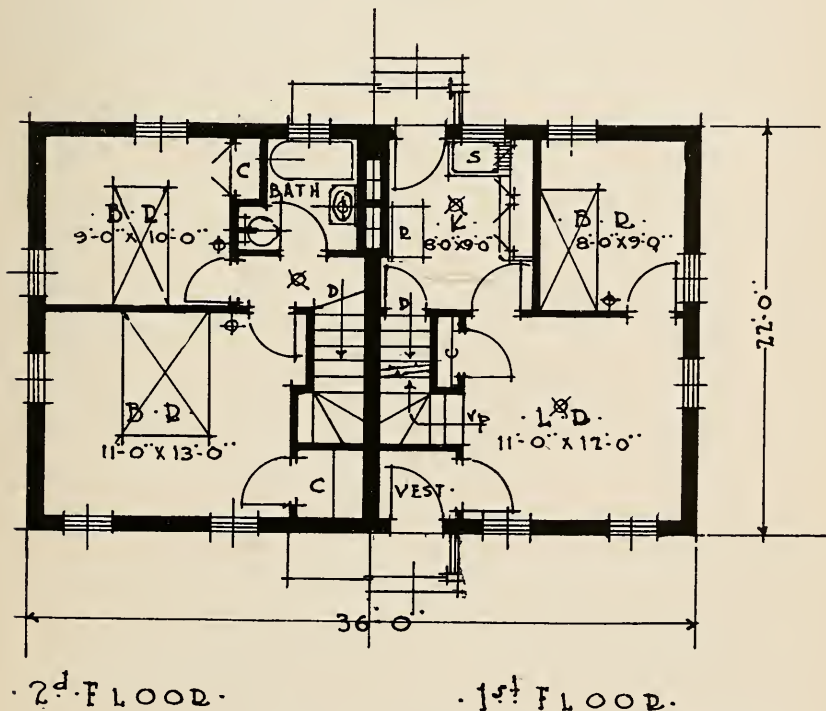
1st FLOOR.

Plan 15. — Type 3, detached.

Kilham & Hopkins.

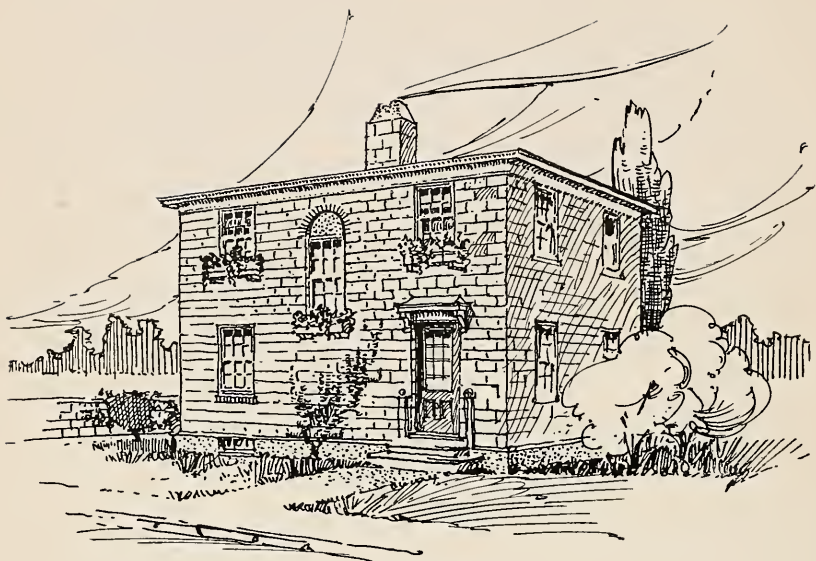


Front Elevation.

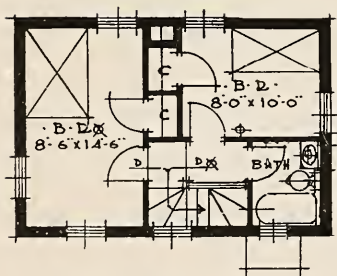


Plan 16. — Type 3, detached.

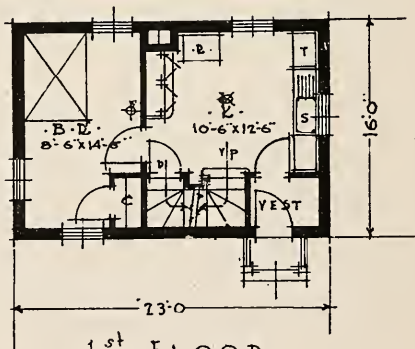
Kilham & Hopkins.



Front Elevation.



2^d FLOOR.



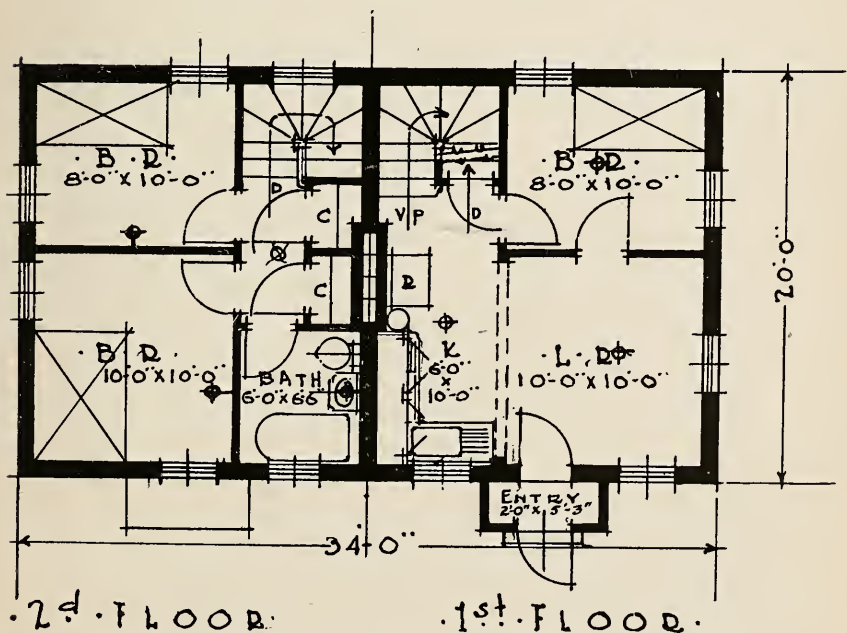
1st FLOOR.

Plan 17. — Type 4, detached.

Kilham & Hopkins.



· FRONT · ELEVATION ·

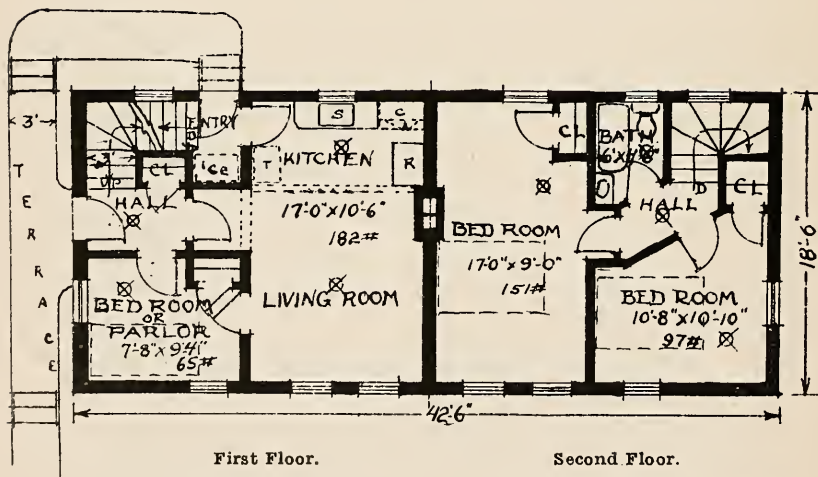


Plan 18. — Type 4, semi-detached.

Kilham & Hopkins.



Front Elevation.



Plan 19. — Type 4, semi-detached.

Arthur C. Comey.

of the house. Directly beyond the kitchen is the entry with ice box and outside door. Leading from it are the stairs to the cellar, which are underneath the stairs from the living room leading to the second floor. Upstairs is a hall large enough to afford access to the three bedrooms and bath. The large bedroom is suitable for parents and small child, the medium-sized bedroom for two children of the same sex, and the third, smallest bedroom, for a third child or dependent. Each bedroom has a closet of ample proportions. The bathroom has room for tub, washbowl and seat. The washbowl will not, however, be provided in the beginning, as each fixture adds expense, and many families will ordinarily use the kitchen sink for washing. The house is electrically lighted throughout, with nine ceiling outlets in such positions that the lamp pulls may easily be reached without the extra expense of wall switches, except that a switch at the head of the stairs is provided for lighting the cellar light.

Type 1, semi-detached, shown by Plan 12, is an adaptation of Plan 10 to the requirements of the double house.

In Type 2 the size of the house is slightly reduced and the dining room and kitchen thrown more together as a single large room, with the cooking portion at one end.

In Type 3 the dining room is omitted with the intention of one end of the living room being used for this purpose. Space is provided down stairs for a bedroom or parlor.

Type 4 represents the smallest of these houses. Two plans of the same type are submitted. In the dwelling which is shown with a terrace on one side several advantageous arrangements have been made in this small space. Placing the excavation from cellar along the side of the house makes the walk at this point usable as a terrace, in place of a porch, which has been thought too expensive a feature to provide in any of the houses, though it might well be added by the owner later. Entering directly from the terrace through a short hall, one comes into the living room, which stretches across the house with light and air on both front and back. A beam divides the kitchen space to a certain extent from the

remainder of the room. From this portion a door leads into an entry with space for ice box, back outside door and steps to the cellar. Opposite the stairs to the second floor and accessible from the living room or from the hall is a small room which may be used either as a parlor or as a bedroom, according to the size of the family. Upstairs there are two bedrooms and bathroom. One bedroom is quite large, suitable for the parents and one or more small children. It is believed that this represents the smallest space within which a typical American family can be properly housed.

MEMORANDUM AND SPECIFICATIONS.

The architects' memorandum and specification for all types submitted by Kilham & Hopkins with their plans are as follows: —

(a) *Location.* — Within 5 miles of the center of Lowell, on electric car line; $\frac{1}{8}$ mile to freight station (see location map, page 49).

(b) *Public Service.* — Obtain and pay for permits for water and electric light service, etc., and connect with same at a point not over 30' from front wall of house.

(c) *Preparation of Lot.* — No grading, blasting, removal of trees or other natural objects is included.

(d) *Excavation.* — Excavation is in coarse sand and gravel, which may be used in the work. Do all excavating, and later fill in around walls and piers, and use extra material in grading up around house as directed.

(e) *Concrete Work.* — Erect suitable forms and pour cellar walls of 1, 3 and 6 concrete, well tamped. Walls must be not less than 10" thick. Later, smooth off bottom of cellar, roll and lay 3" floor of concrete 1, 3 and 6, with surface of 1 to 2 floated smooth. When frame is up, fill voids between ends of floor joists and between girders and floor above with concrete grout, or brick laid in mortar.

(f) *Brick or Tile Work.* — Build chimney of brick, 4" walls with tile flue lining, or of 4" terra cotta blocks; masonry to be laid up with mortar, 1 part P. C., 1 part lime and 6 parts sand. Finish above roof with 8" brick walls or 4" tile, with smooth, glazed surface, and joints carefully pointed. Top to be protected with heavy wash of cement, 1 to 2, with strip of galvanized Clinton wire. Build in 4-pound lead counter flashing at roof. Put in 4" tile drain from conductors to dry well, including tile to receive foot of wooden conductor. Build dry well 4' deep and 4' square. Connect to plumbers 4" C. I. soil, with 4" akron pipe to cesspool. Build cesspool 15' from house wall, 4' in diameter, and 8' deep below grade.

Give alternate figure for connecting with street sewer, 40' from front wall of house.

(g) *Frame.* — To be of sound spruce or hemlock, well seasoned, and free

from bark and large or loose knots, and full dimensions throughout. Sill, 4" x 6"; studs, outside walls, 2" x 4", 16" O. C.; partitions, 2" x 3", 16" O. C.; joists, 2" x 7", 16" O. C., bridged once where spans exceed 8'. Rafters for flat roofs, 2" x 7", 20" O. C.; for pitched roofs, 2" x 5", 24" O. C. Plate, 3" x 4".

(h) *Rough Boarding*. — Cover floor timbers of first floor with $\frac{7}{8}$ " spruce or hemlock boards. On these lay heavy rosin-sized paper. Cover outside walls and roof with similar boarding.

(i) *Shingles*. — Cover outside wall boarding with good quality cedar or redwood shingles, laid $6\frac{1}{2}$ " to the weather, in every case breaking joints. Adjust courses to fit sills and heads of windows. Cover pitched roofs and tops and sides of dormers with Reynolds or Equal asphalt shingle, with green slate chip surface, valleys of same material. Shingles to be laid with $2\frac{1}{2}$ " head cover. Flash at chimney with 4-pound lead, and turn down lead counter flashing over same. Flash around vent pipe with same material.

(j) *Windows, Double Hung*. — Stock sizes, divided by muntins as shown, $1\frac{3}{8}$ " white pine sash, hung on Samson spot cord, balanced with C. I. weights, on steel axle pulleys. Glass D. T. cylinder set with putty. Frames stock, white pine.

(k) *Outside Finish*. — Outside finish: stock, cypress gutters, on one side only for flat roofs, cypress conductors, moulding at water table and at eaves, cypress, stock pattern. The window boxes, trellises and other detachable features are not included in the contracts.

(l) *Plasters*. — Walls and ceilings of first and second floors to be lathed with clear spruce lath, breaking joints every 7 courses, and covered with lime and hair mortar, two coats. Lime is to be slacked two weeks in advance of use, after thorough sifting. Finish with smooth float. All exterior angles to have wood or metal corner beads.

(m) *Inside Finish*. — This will be southern yellow pine, 4" x $\frac{3}{4}$ " base, with $\frac{1}{4}$ " round on top; plain 4" x $\frac{7}{8}$ " door trim, lintel head; $\frac{7}{8}$ " window stool with apron piece under, and stock $1\frac{3}{4}$ " picture moulding in all rooms. Balusters 1" round, 2 to a tread. Posts 4 x 4, with $1\frac{1}{2}$ " block cap, all yellow pine.

(n) *Floors*. — Southern yellow pine, $3\frac{1}{2}$ " face, clear matched $\frac{7}{8}$ " stock, laid tight over under floor of first story, and directly on joists of second. Treads and risers, same material.

(o) *Doors*. — Stock fir, $1\frac{3}{8}$ " thick; inside doors generally 2' 8" x 6' 6"; smaller where necessary. Frames out of $1\frac{1}{2}$ " stock, rebated. Outside frame $1\frac{3}{4}$ " thick, double rebated, of white pine.

(p) *Fittings*. — Sinks to have grooved yellow pine drain boards, closets, 12" shelf with hook strip under. Kitchen to have 3 shelves, where indicated, on wide cleats.

(q) *Hardware*. — Outside door, 1 pair brass butts, 3-lever rim lock, brass knob, heavy rim bolt. Inside doors, 2 knob rim latch set; 1 pair steel butts, to paint; windows C. I. fast; closets, cast steel hooks, 6 to a closet.

(r) *Paint*. — Exterior woodwork, except shingles, to be treated with one heavy coat of oil stain; outside door, both sides, and outside of all sash to have 3 coats lead and oil paint.

Inside finish to be oiled, 2 coats raw linseed, rubbed down after each coat. Plaster walls to have 2 coats lead and oil and 1 coat enamel. Floors, 2 coats raw linseed, rubbed dry. Doors, stained with oil stain, and shellac to 1 coat; butts painted. All exposed plumbing pipes in first and second stories painted 3 coats like walls.

(s) *Plumbing*. — Conductors to have 2" lead gooseneck. Waste system of C. I. to 6' outside cellar wall; wastes from sinks to bowls, 2", from water-closets, 4"; joints calked with oakum and filled with lead. All pipe exposed. Vents size of wastes, through roof, or into chimney flue where this is nearer.

Supplies to be brought from street, $\frac{3}{4}$ " to house, $\frac{1}{2}$ " to fixtures.

Fixtures: Water-closet, wash down pattern, heavy earthenware, with joint between earthenware and iron, above floor. High tank finished like trim.

Lavatory: Enameled iron, 16" x 20", with hot and cold water, brass compression cocks, plug and chain; $\frac{1}{2}$ S trap.

Sink: Slate, 18" x 30", with brass strainer, and C. I. grease trap, hot and cold water faucets.

Bath tub: Enameled iron 4' long, hot and cold water faucets, plug and chain, and trap.

Hot water: Connect with range, $\frac{3}{4}$ " supply with $\frac{1}{2}$ " branches to fixtures; 30-gallon galvanized iron hot-water boiler and standard.

Plumbing to be tested with water test and made perfectly tight.

(t) *Wiring*. — Connect with public service at wall of building and wire for and install lights according to underwriter's rules. System to be porcelain knob and tube; plain spun brass fixtures of smallest and simplest type.

BIDS FOR CONSTRUCTION.

We hereby agree to build houses as per specifications and plans submitted: —

Type 1, detached, 22' x 22',	\$1,694 00
Type 1, semi-detached, 40' x 24',	3,110 00
Type 2, detached, 25' x 19',	1,662 00
Type 2, semi-detached, 51' x 18',	3,163 00
Type 3, detached, 27' x 15',	1,417 00
Type 3, semi-detached, 36' x 22',	2,675 00
Type 4, detached, 23' x 16',	1,310 00
Type 4, semi-detached, 34' x 20',	2,040 00

BILLERICA GARDEN SUBURB, INC.,
C. H. WILLIAMS,
Treasurer.

NORTH BILLERICA, MASS., Oct. 12, 1916.

The Bill recommended.

Attention is recalled to the opening paragraph of this report. The intervening pages present, with much detail, plans for the development of projects along the lines set forth by the advocates of homestead legislation and stated in the act creating the Commission. These plans are embodied in this report as a direct response to the apparent desire of the General Court. They are intended to be a statement, as nearly accurate as statements regarding future events may be, of the general policy and course of action, and the things the Commission would do in case the appropriation asked for is made. While the plans set forth may not be entirely beyond criticism, it is believed that they are feasible and practical, and can without great difficulty be worked out within the limitations stated in the report, excepting that the actual cost for which a house can be constructed is at all times uncertain, more so at the present time than usual. If the conclusion of the Commission is correct that \$15 per month, or \$2,000 for purchase price, is the utmost that the people sought to be helped can afford to pay for shelter, then with advancing prices possibly what now seem to be the minimum requirements for a wholesome home would need to be still further reduced in order to come within those figures. Whether such reduction is possible the Commission does not here discuss, and hopes are entertained that its consideration will never be necessary.

The Commission repeats that it is not recommending that the Commonwealth enter the real estate business for the purpose of supplying wholesome homes for low-paid workers, no matter how great the social or individual need may be. It only recommends an appropriation for a single experiment, or demonstration, to learn whether it is financially possible to supply such homes for such workers, what are the principles or policies upon which such an undertaking should proceed, what are the dangers and what should be the limitations. The recommendation is embodied in the following bill: —

AN ACT TO AUTHORIZE THE HOMESTEAD COMMISSION TO PROVIDE HOMESTEADS FOR CITIZENS.

SECTION 1. The homestead commission is hereby authorized, by and with the consent of the governor and council, to take or purchase, in behalf of and in the name of the commonwealth, a tract or tracts of land, for the purpose of providing homesteads, or small houses and plots of ground, for mechanics, laborers, wage earners, or others, citizens of this commonwealth; and may hold, improve, subdivide, build upon, sell, repurchase, manage and care for said tract or tracts and the buildings constructed thereon, in accordance with such terms and conditions as may be determined upon by the commission.

SECTION 2. The commission may sell said tract or tracts or any portions thereof, with or without buildings thereon, for cash, or upon such installments, terms and contracts, and subject to such restrictions and conditions, as may be determined upon by the homestead commission; but no tract of land shall be sold for less than its cost, including the cost of any buildings thereon. All proceeds from the sale of land and buildings or other source shall be paid into the treasury of the commonwealth.

SECTION 3. The homestead commission is hereby authorized to expend not to exceed one hundred thousand dollars for the purposes of this act.

SECTION 4. This act shall take effect upon its passage.

Measures previously recommended by the Commission.

Two measures of vital and far-reaching importance recommended by the Homestead Commission have been enacted into law, — city planning¹ and authorizing cities to teach agriculture.² In the three years that have elapsed since the recommendation of this Commission was approved by the General Court, the proposition that communities should grow by plan and not by chance has been pretty generally accepted, its progress in the public mind has been rapid, but concrete results in the control and regulation of urban development are not yet large. There are now forty-nine local planning boards in the Commonwealth, and the plans, studies and recommendations made by many of them show a public-spirited zeal and ability that will surely prove to be of great benefit to their communities. The fourth annual conference of the boards, at Springfield, Nov. 23 and 24, 1916, was well attended, interesting and instructive. The Homestead Commission expects soon to print a full account of the proceedings.

Authority for the school boards to teach agriculture was accepted by large majorities in each of the cities of the State.

A measure to establish residential districts³ was rejected, as were also two measures to render city planning effective.⁴

A bill drawn by a commission appointed on the recommendation of the Homestead Commission, to provide a more workable and equitable system for the assessment of betterments when public improvements are made, is still pending.

¹ Chapters 494 and 595, 1913.

² Chapter 185, 1916.

³ House 122, 1914.

⁴ House 121, 1914; House 636, 1915.



The Commonwealth of Massachusetts.

FIFTH ANNUAL REPORT

OF

THE HOMESTEAD COMMISSION.

1917.



BOSTON:
WRIGHT & POTTER, PRINTING CO., STATE PRINTERS,
32 DERNE STREET.
1918.

PUBLICATION OF THIS DOCUMENT
APPROVED BY THE
SUPERVISOR OF ADMINISTRATION.

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The Commonwealth of Massachusetts.

BOSTON, December, 1917.

To the Honorable Senate and House of Representatives.

In compliance with the provisions of chapter 714 of the Acts of 1912, and chapters 494 and 595 of the Acts of 1913, the Homestead Commission, created by chapter 607 of the Acts of 1911, has the honor to submit the accompanying report and bill.

CHARLES F. GETTEMY, *Chairman*.
AUGUSTUS L. THORNDIKE.
KENYON L. BUTTERFIELD.
GEORGE CHANDLER WHIPPLE.
EVA W. WHITE.
WARREN DUNHAM FOSTER.
HENRY STERLING, *Secretary*.
ARTHUR C. COMEY.
CORNELIUS A. PARKER.

REPORT OF THE HOMESTEAD COMMISSION.

So far as this Commission is aware, the first appropriation made in the United States for government funds to aid workers in acquiring homesteads, or "small houses and plots of ground," was approved by Governor Samuel W. McCall on May 26, 1917.¹ The amount appropriated was \$50,000.

This appropriation was the result of an agitation begun in 1908 for State aid to workers in obtaining wholesome homes. The activities of those earlier years secured the appointment in 1909 of a special commission of five members to consider the subject. This commission sat during the summer of 1909, held public hearings and private conferences, and gathered information, and in January, 1910, made its report (House Doc. 198, 1910). The commission was divided, four to one against the proposition that the Commonwealth should engage in such an enterprise. The minority, Freeman N. Saltus of Worcester, made a favorable report (House Doc. 258, 1910). The Committee on Public Health reported favorably a bill (House Doc. 1687, 1910), based upon the report of Mr. Saltus, to create a permanent commission and to prescribe methods of procedure. This measure was lost.

Five bills seeking to obtain State aid for homes for workers were filed in the General Court of 1911. Consideration of these bills by the Legislature led to the passage of chapter 607, Acts of 1911, establishing the present Homestead Commission and directing it to draw a bill under which homestead work might proceed. This Commission submitted such a bill in January of the following year (House Doc. 442, 1912), accompanied by a suitable report (House Doc. 441, 1912). In the meantime, the Massachusetts Bureau of Statistics issued a bulletin (No. 88), "Homesteads for Workingmen," requests for which still continue, although the edition was long ago exhausted.

¹ Chapter 310, General Acts, 1917.

The Massachusetts Supreme Judicial Court in May, 1912, gave an opinion that the whole project was unconstitutional (Opinion of the Justices, 211 Mass. 624). The Legislature, however, not content with this disappointing outcome, instructed the Homestead Commission (chapter 714, Acts of 1912) to "continue its investigation of the need of providing homesteads for the people of the commonwealth and its study of plans already in operation or contemplated elsewhere for housing wage-earners, . . . and recommend such legislation as in its judgment will tend to increase the supply of wholesome homes for the people."

Under these instructions the Commission in 1913 submitted a somewhat extended report,¹ setting forth the Commonwealth's need for a larger supply of wholesome dwelling places for its inhabitants, and a summary of foreign governmental aid in home building. The report was accompanied by various recommendations, among them one to establish city and town planning boards, which was approved by the Legislature and enacted into law (chapter 494, Acts of 1913). The Commission was given the task of stimulating the appointment of local planning boards and furnishing them with such suggestions and information as might be feasible (chapter 595, Acts of 1913).

Agitation for State aid for workers' homes resulted in the approval by the General Court in 1914 and 1915, and ratification by the voters in the latter year, of a constitutional amendment which made appropriations for such a purpose possible. The following is the text of the amendment: —

The general court shall have power to authorize the commonwealth to take land and to hold, improve, subdivide, build upon and sell the same for the purpose of relieving congestion of population and providing homes for citizens: *provided, however*, that this amendment shall not be deemed to authorize the sale of such land or buildings at less than the cost thereof.

This amendment is narrow in its scope. When the Constitutional Convention met in 1917, proposals for a broader amendment were made by persons interested in the housing question, two of which have the approval of the committees to which they

¹ First annual report of the Homestead Commission, Public Document No. 103, 1913.

were referred, but they have not yet been finally acted upon by the convention. An amendment regarding the necessities of life and the providing of shelter was approved by the convention, and ratified by the voters at the State election in 1917, as follows:—

The maintenance and distribution at reasonable rates, during time of war, public exigency, emergency or distress, of a sufficient supply of food and other common necessities of life and the providing of shelter, are public functions, and the commonwealth and the cities and towns therein may take and may provide the same for their inhabitants in such manner as the general court shall determine.

After the ratification of the 1915 homestead amendment, this Commission recommended to the Legislature an appropriation of \$50,000 for an experiment in constructing houses for workers. The recommendation failed to pass in 1916, but an appropriation of that amount for a demonstration or experiment in the provision of homesteads within the means of low-paid workers was made in 1917.

The Lowell Homestead Project.

It was the desire of the Commission to accommodate, as far as possible, citizens with families living in crowded tenements and receiving only low wages. Of these there were in 1915, in Massachusetts manufacturing establishments, 285,000 adult males receiving less than \$15 per week; 148,478 receiving \$10 or less per week,—all men who had or soon ought to have families dependent upon them. Notwithstanding the great increases in wages resulting from the war, in 1916 there were still 82,721 adult males working for \$10 per week or less, and 250,071 were receiving only \$14 per week or less.¹

It was the belief of the Commission that a suitable house of four or five rooms, with garden, could be provided for \$2,000, to be sold with a small cash payment and \$15 per month installments. The recent rise in prices, however, made it wholly impossible to provide the houses designed at that cost. The lowest possible cost of such a home appears to be \$2,400.

The installment terms are based upon a 9 per cent. gross income from the property. These terms work out as follows: after the initial payment, 75 cents per month is due on each

¹ Statistics of Manufactures, 1915, p. 80; 1916, p. 80. Massachusetts Bureau of Statistics.

\$100 of the remaining indebtedness; that is, if \$2,400 is due, the payments will be \$18 per month; if \$2,800 is due, the monthly installment will amount to \$21. The complete payment of indebtedness at these two amounts works out as follows:—

TABLE 1. — *Amortization Table showing the Paying Off of \$2,400 (Payments \$18 per Month, Interest 5 Per Cent.).*

	Amount paid in.	Interest.	Paid on Principal.	Principal left unpaid.
<i>First Year.</i>				
First quarter,	\$54 00	\$30 00	\$24 00	\$2,376 00
Second quarter,	54 00	29 70	24 30	2,351 70
Third quarter,	54 00	29 40	24 60	2,327 10
Fourth quarter,	54 00	29 09	24 91	2,302 19
<i>Second Year.</i>				
First quarter,	\$54 00	\$28 78	\$25 22	\$2,276 97
Second quarter,	54 00	28 46	25 54	2,251 43
Third quarter,	54 00	28 14	25 86	2,225 57
Fourth quarter,	54 00	27 82	26 18	2,199 39
<i>Third Year.</i>				
First quarter,	\$54 00	\$27 49	\$26 51	\$2,172 88
Second quarter,	54 00	27 16	26 84	2,146 04
Third quarter,	54 00	26 83	27 17	2,118 87
Fourth quarter,	54 00	26 49	27 51	2,091 36
<i>Fourth Year.</i>				
First quarter,	\$54 00	\$26 14	\$27 86	\$2,063 50
Second quarter,	54 00	25 79	28 21	2,035 29
Third quarter,	54 00	25 44	28 56	2,006 73
Fourth quarter,	54 00	25 08	28 92	1,977 81
<i>Fifth Year.</i>				
First quarter,	\$54 00	\$24 72	\$29 28	\$1,948 53
Second quarter,	54 00	24 36	29 64	1,918 89
Third quarter,	54 00	23 99	30 01	1,888 88
Fourth quarter,	54 00	23.61	30 39	1,858 49
<i>Sixth Year.</i>				
First quarter,	\$54 00	\$23 23	\$30 77	\$1,827 72
Second quarter,	54 00	22 85	31 15	1,796 57
Third quarter,	54 00	22 46	31 54	1,765 03
Fourth quarter,	54 00	22 06	31 94	1,733 09
<i>Seventh Year.</i>				
First quarter,	\$54 00	\$21 66	\$32 34	\$1,700 75
Second quarter,	54 00	21 26	32 74	1,668 01
Third quarter,	54 00	20 85	33 15	1,634 86
Fourth quarter,	54 00	20 44	33 56	1,601 30
<i>Eighth Year.</i>				
First quarter,	\$54 00	\$20 02	\$33 98	\$1,567 32
Second quarter,	54 00	19 59	34 41	1,532 91
Third quarter,	54 00	19 16	34 84	1,498 07
Fourth quarter,	54 00	18 73	35 27	1,462 80

TABLE 1 — *Concluded.*

	Amount paid in.	Interest.	Paid on Principal.	Principal left unpaid.
<i>Ninth Year.</i>				
First quarter,	\$54 00	\$18 29	\$35 71	\$1,427 09
Second quarter,	54 00	17 84	36 16	1,390 93
Third quarter,	54 00	17 39	36 61	1,354 32
Fourth quarter,	54 00	16 93	37 07	1,317 25
<i>Tenth Year.</i>				
First quarter,	\$54 00	\$16 47	\$37 53	\$1,279 72
Second quarter,	54 00	16 00	38 00	1,241 72
Third quarter,	54 00	15 52	38 48	1,203 24
Fourth quarter,	54 00	15 04	38 96	1,164 28
<i>Eleventh Year.</i>				
First quarter,	\$54 00	\$14 55	\$39 45*	\$1,124 83
Second quarter,	54 00	14 06	39 94	1,084 89
Third quarter,	54 00	13 56	40 44	1,044 45
Fourth quarter,	54 00	13 06	40 94	1,003 51
<i>Twelfth Year.</i>				
First quarter,	\$54 00	\$12 54	\$41 46	\$962 05
Second quarter,	54 00	12 03	41 97	920 08
Third quarter,	54 00	11 50	42 50	877 58
Fourth quarter,	54 00	10 97	43 03	834 55
<i>Thirteenth Year.</i>				
First quarter,	\$54 00	\$10 43	\$43 57	\$790 98
Second quarter,	54 00	9 89	44 11	746 87
Third quarter,	54 00	9 34	44 66	702 21
Fourth quarter,	54 00	8 78	45 22	656 99
<i>Fourteenth Year.</i>				
First quarter,	\$54 00	\$8 21	\$45 79	\$611 20
Second quarter,	54 00	7 64	46 36	564 84
Third quarter,	54 00	7 06	46 94	517 90
Fourth quarter,	54 00	6 47	47 53	470 37
<i>Fifteenth Year.</i>				
First quarter,	\$54 00	\$5 88	\$48 12	\$422 25
Second quarter,	54 00	5 28	48 72	373 53
Third quarter,	54 00	4 67	49 33	324 20
Fourth quarter,	54 00	4 05	49 95	274 25
<i>Sixteenth Year.</i>				
First quarter,	\$54 00	\$3 43	\$50 57	\$223 68
Second quarter,	54 00	2 80	51 20	172 48
Third quarter,	54 00	2 16	51 84	120 64
Fourth quarter,	54 00	1 50	52 50	68 14
<i>Seventeenth Year.</i>				
First quarter,	\$54 00	\$0 85	\$53 15	\$14 99
Fourth month,	16 00	—	—	—

TABLE 2. — *Amortization Table showing the Paying Off of \$2,800 (Payments \$21 per Month, Interest 5 Per Cent.).*

	Amount paid in.	Interest.	Paid on Principal.	Principal left unpaid.
<i>First Year.</i>				
First quarter,	\$63 00	\$35 00	\$28 00	\$2,772 00
Second quarter,	63 00	34 65	28 35	2,743 65
Third quarter,	63 00	34 30	28 70	2,714 95
Fourth quarter,	63 00	33 94	29 06	2,685 89
<i>Second Year.</i>				
First quarter,	\$63 00	\$33 57	\$29 43	\$2,656 46
Second quarter,	63 00	33 21	29 79	2,626 65
Third quarter,	63 00	32 83	30 17	2,596 48
Fourth quarter,	63 00	32 46	30 54	2,565 94
<i>Third Year.</i>				
First quarter,	\$63 00	\$32 07	\$30 93	\$2,535 01
Second quarter,	63 00	31 69	31 31	2,503 70
Third quarter,	63 00	31 30	31 70	2,472 00
Fourth quarter,	63 00	30 90	32 10	2,439 90
<i>Fourth Year.</i>				
First quarter,	\$63 00	\$30 50	\$32 50	\$2,407 40
Second quarter,	63 00	30 09	32 91	2,374 49
Third quarter,	63 00	29 69	33 31	2,341 18
Fourth quarter,	63 00	29 26	33 74	2,307 44
<i>Fifth Year.</i>				
First quarter,	\$63 00	\$28 84	\$34 16	\$2,273 28
Second quarter,	63 00	28 42	34 58	2,238 70
Third quarter,	63 00	27 98	35 02	2,203 68
Fourth quarter,	63 00	27 55	35 45	2,160 23
<i>Sixth Year.</i>				
First quarter,	\$63 00	\$27 10	\$35 90	\$2,132 33
Second quarter,	63 00	26 65	36 35	2,095 98
Third quarter,	63 00	26 20	36 80	2,059 18
Fourth quarter,	63 00	25 74	37 26	2,021 92
<i>Seventh Year.</i>				
First quarter,	\$63 00	\$25 28	\$37 72	\$1,984 20
Second quarter,	63 00	24 80	38 20	1,946 00
Third quarter,	63 00	24 33	38 67	1,907 33
Fourth quarter,	63 00	23 84	39 16	1,869 17
<i>Eighth Year.</i>				
First quarter,	\$63 00	\$23 36	\$39 64	\$1,829 53
Second quarter,	63 00	22 87	40 13	1,789 40
Third quarter,	63 00	22 37	40 63	1,748 77
Fourth quarter,	63 00	21 86	41 14	1,707 63
<i>Ninth Year.</i>				
First quarter,	\$63 00	\$21 35	\$41 65	\$1,665 98
Second quarter,	63 00	20 81	42 19	1,623 79
Third quarter,	63 00	20 30	42 70	1,581 09
Fourth quarter,	63 00	19 76	43 24	1,537 85

TABLE 2 — *Concluded.*

	Amount paid in.	Interest.	Paid on Principal.	Principal left unpaid.
<i>Tenth Year.</i>				
First quarter,	\$63 00	\$19 22	\$43 78	\$1,494 07
Second quarter,	63 00	18 68	44 32	1,449 75
Third quarter,	63 00	18 12	44 88	1,404 87
Fourth quarter,	63 00	17 56	45 44	1,359 43
<i>Eleventh Year.</i>				
First quarter,	\$63 00	\$17 00	\$46 00	\$1,313 43
Second quarter,	63 00	16 42	46 58	1,266 85
Third quarter,	63 00	15 84	47 16	1,219 69
Fourth quarter,	63 00	15 25	47 75	1,171 94
<i>Twelfth Year.</i>				
First quarter,	\$63 00	\$14 65	\$48 35	\$1,123 59
Second quarter,	63 00	14 04	48 96	1,074 63
Third quarter,	63 00	13 43	49 57	1,025 06
Fourth quarter,	63 00	12 81	50 19	974 87
<i>Thirteenth Year.</i>				
First quarter,	\$63 00	\$12 19	\$50 81	\$924 06
Second quarter,	63 00	11 55	51 45	872 61
Third quarter,	63 00	10 91	52 09	820 52
Fourth quarter,	63 00	10 26	52 74	767 78
<i>Fourteenth Year.</i>				
First quarter,	\$63 00	\$9 60	\$53 40	\$714 38
Second quarter,	63 00	8 93	54 07	660 31
Third quarter,	63 00	8 25	54 75	605 66
Fourth quarter,	63 00	7 57	55 43	550 13
<i>Fifteenth Year.</i>				
First quarter,	\$63 00	\$6 88	\$56 12	\$494 01
Second quarter,	63 00	6 18	56 82	437 19
Third quarter,	63 00	5 46	57 54	379 65
Fourth quarter,	63 00	4 75	58 25	321 40
<i>Sixteenth Year.</i>				
First quarter,	\$63 00	\$4 02	\$58 98	\$262 42
Second quarter,	63 00	3 28	59 72	202 70
Third quarter,	63 00	2 53	60 47	142 23
Fourth quarter,	63 00	1 78	61 22	81 01
<i>Seventeenth Year.</i>				
First quarter,	\$63 00	\$1 01	\$61 99	\$19 02
Fourth month,	21 00	—	—	—

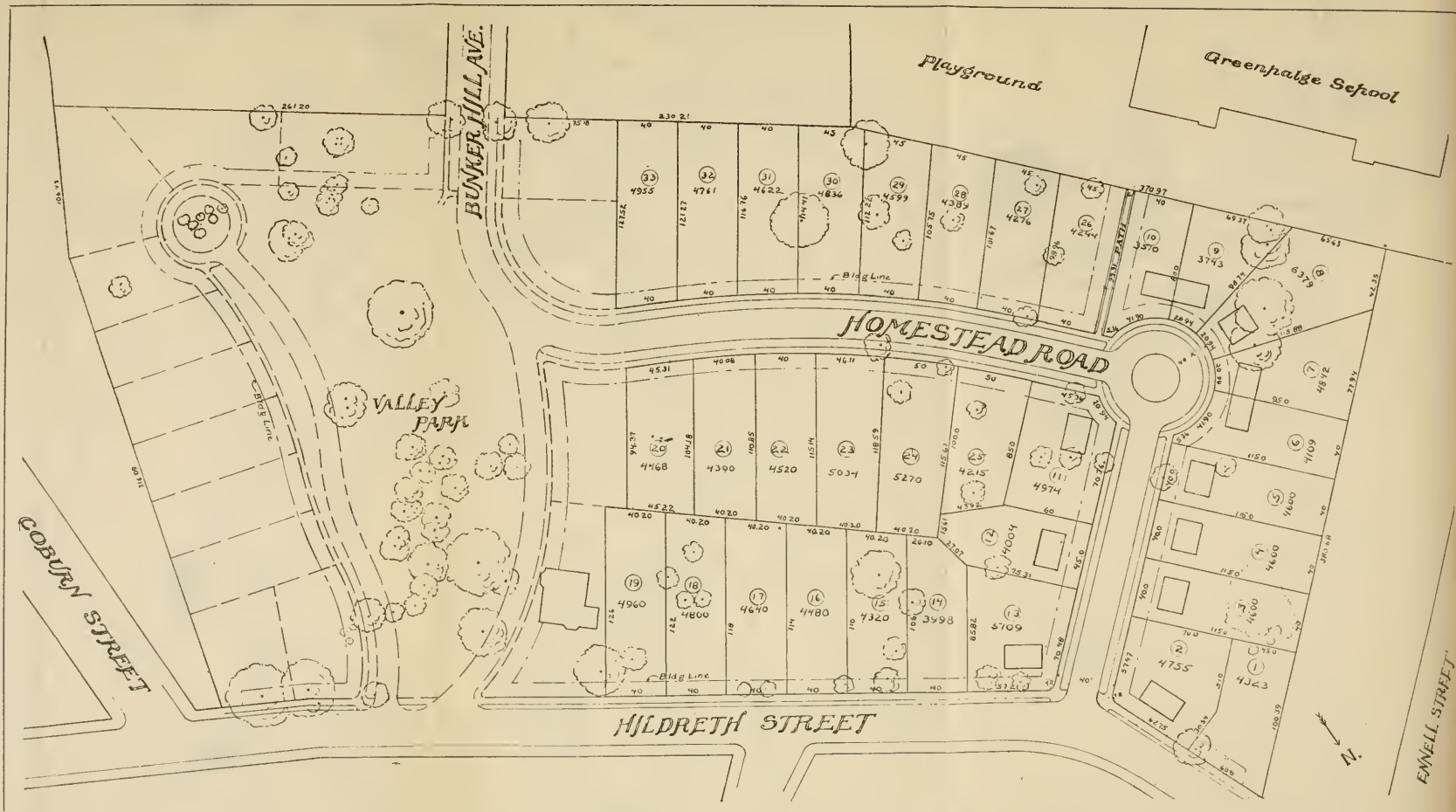
The Commission believes that these are the easiest terms upon which such property can be sold with safety. If in addition to the monthly installment the purchaser pays taxes, insurance, water rates and repairs, the debt is extinguished in sixteen years and four months. Should the Commission pay taxes and insurance out of the monthly installment, it will require over twenty-seven years to clear the property from debt.

Instruction and supervision in gardening, care of the home, etc., will be furnished by the Homestead Commission, and every purchaser will be under obligation to take proper care of his property and make the most profitable possible use of his garden. The return to be expected from one of these gardens should be not less than \$25 per year, an appreciable amount toward reducing the cost of carrying the house.

SELECTION OF LOCATION.

After careful consideration, largely because of its nearness to Boston, its numerous and varied industries with a considerable body of low-paid workers, its suitable available lands, and the declaration of cordial co-operation by the city authorities, Board of Trade and citizens, the Homestead Commission selected Lowell (population 108,000) as the community in which its demonstration or experiment should be made. About twenty sites in that city were examined, and a plot of about 7 acres known as the Wyman lot, on Hildreth Street, was chosen. The location of the lot, in its relation to the business and industrial center of the city, is shown on the map of Lowell facing this page, as are also the locations of the other plots considered. The distance from Merrimac Square to the lot, the busiest part of the city, and a dozen or more of the large mills, across the Merrimac River by way of Bridge Street or over the Aiken Street Bridge, is only about a mile. Thus the cost of car fare is saved for the families on the Homestead lot. The Greenhalge Public School and the St. Louis Parochial School are both immediately in the rear and adjoining the lot. Churches and stores are near. Experts have examined the ground and pronounce it excellent for gardening purposes. There is space on the entire tract for about fifty homesteads such as are contemplated. The Commission will be unable to construct more than fifteen houses with the funds at present at its disposal.

The northern portion of the lot, nearest Ennell Street, was laid out along garden suburb lines for about thirty houses, in accordance with plans prepared by Mr. Arthur C. Comey, with lots of not less than 40 feet frontage and averaging 4,500 square feet in area. (See plan, facing page 15.) Entrance is given by means of a new street extending southwest into the grounds, 40 feet in width, with a 10-foot setback on each side, called Home-



Plan of Seven-Acre Homestead Plot in Lowell (Arthur C. Comay).

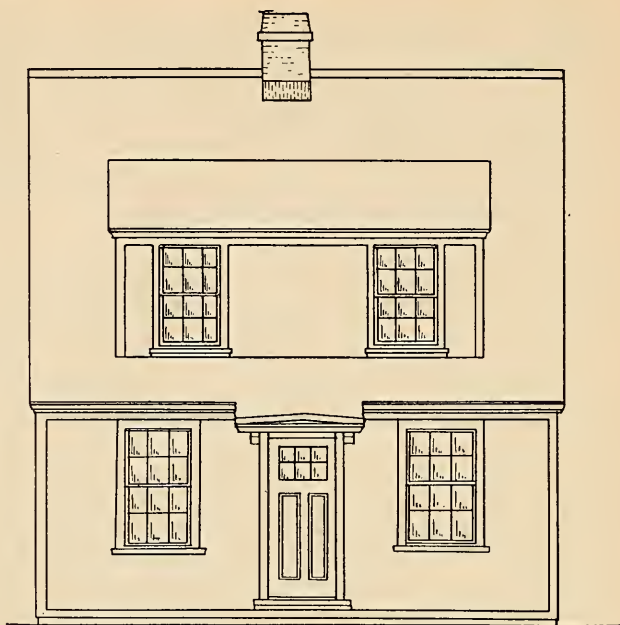
stead Road. At a point about 230 feet distant from Hildreth Street the road is broadened enough to allow for a circular space, to be ornamented with shrubs, flowers, etc. Thence the road proceeds southeast. Homestead Road, up to and including the circle, has been brought to grade. It will be surfaced and planted with street trees and equipped with sewer, water, sidewalks, electricity and gas.

With expert assistance, a careful valuation of 33 lots, shown on the plan, has been made, having in mind size, location, fertility, trees and original average cost per square foot. As nearly as could be ascertained, the average cost of survey, bounds and necessary improvements was estimated to be \$84.30 per lot. Table 3, which follows, gives, for the twelve lots now built upon, in the first column the number of each lot, as shown on the plan facing this page; column 2, the area; column 3, unit value per square foot; column 4, the unimproved value of the lot; column 5, selling value of the lot after adding \$84.30, the estimated cost of necessary improvements; column 6, the actual contract construction cost of each house; column 7, the selling price, after adding overhead and incidental charges: —

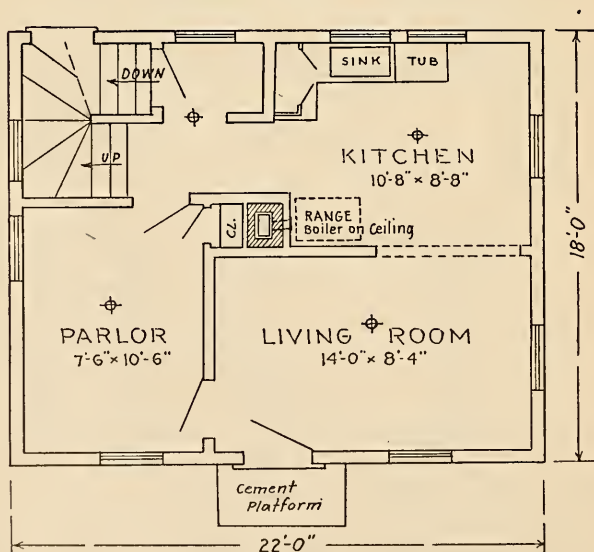
TABLE 3. — *Details of Cost, and Sale Price.*

NUMBER OF LOT.	Area.	Unit Value per Square Foot (Cents).	Value of Land Unim- proved.	Selling Value of Lot.	Contract Cost of House.	Selling Price.
2,	4,755	8+	\$432 35	\$516 65	\$2,381 65	\$3,100 00
3,	4,600	6	267 00	351 30	2,333 85	2,900 00
4,	4,600	6	267 00	351 30	2,333 85	2,900 00
5,	4,600	6	267 00	351 30	2,333 85	2,900 00
6,	4,109	6	233 85	318 15	1,952 85	2,450 00
7,	4,842	6	249 30	333 60	1,952 85	2,450 00
8,	6,379	6	318 45	402 75	2,333 85	2,900 00
9,	3,743	6	199 85	284 15	1,952 85	2,400 00
10,	3,510	6	217 95	302 25	1,952 85	2,425 00
11,	4,974	8+	370 10	454 40	2,381 65	3,000 00
12,	4,004	6	247 70	332 00	2,381 65	2,900 00
13,	5,109	8+	447 25	531 55	2,381 65	3,100 00

Plans and specifications were prepared in September, and bids for constructing three types of houses were received in October. The erection of twelve houses was begun October 16, 1917.

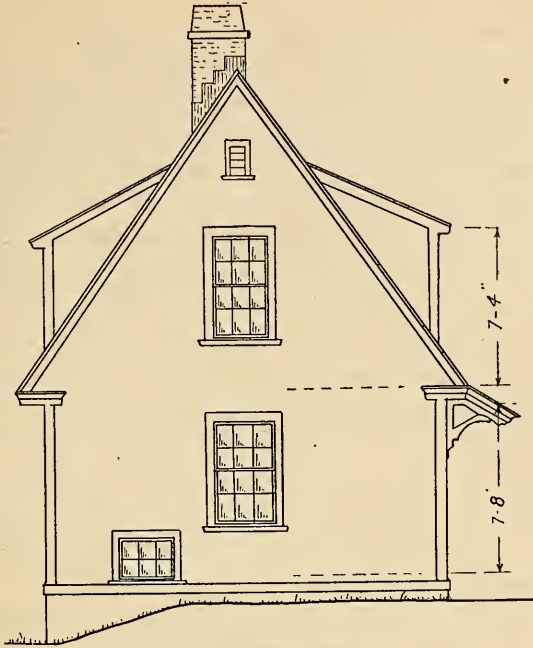


FRONT ELEVATION

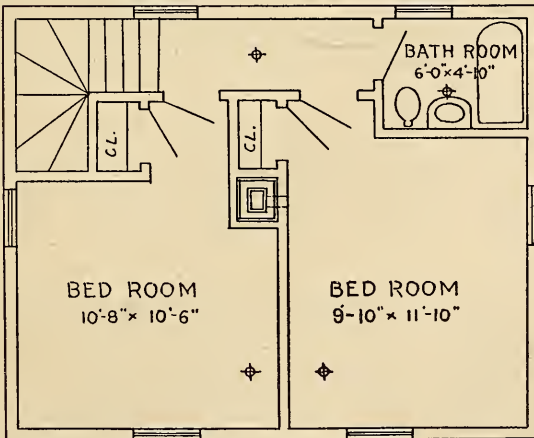


PLAN OF FIRST FLOOR

Type 1.—Five-room detached cottage,
Kilham & Hopkins, Architects.



SIDE ELEVATION



PLAN OF SECOND FLOOR

DESCRIPTION OF HOUSES.

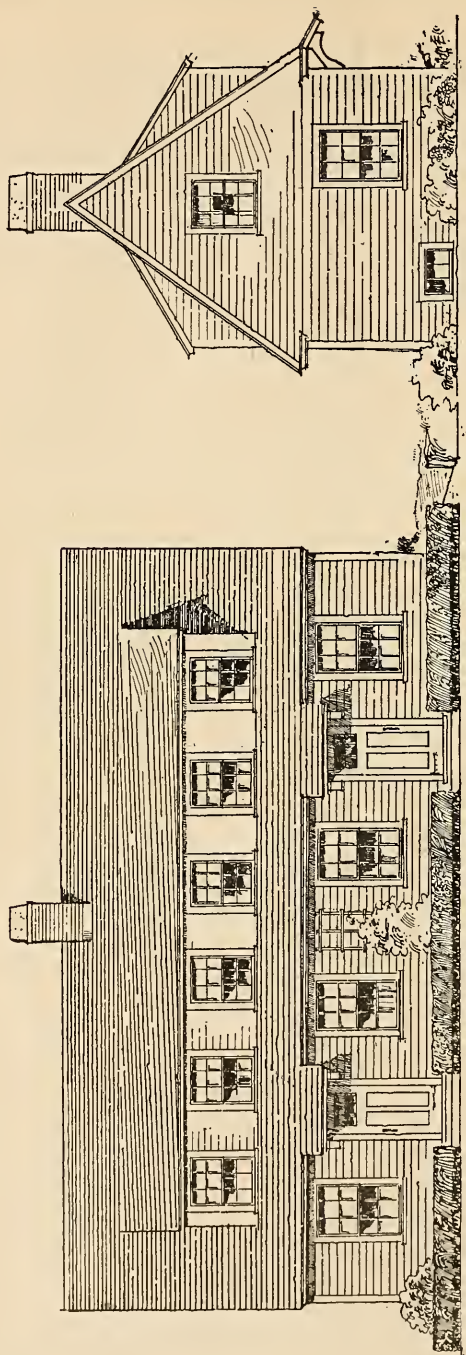
All the houses are of frame construction; hemlock stock for frame, boarding for walls, roof and underfloor; hardwood floors; cedar shingles for walls, green slate-surfaced asphalt twin-shingles for roofs and dormer walls; rooms finished in hard pine, plaster walls and ceilings, the former papered. Workmanship is of a good order, superior to that usually done on houses built on contract or by speculative builders. Each house has cemented cellar, ventilated attic, bath, water-closet, washbowl, hot and cold water, one set washtub, electric lights, gas connection for kitchen gas range. Heating is intended to be by the range, with provision for additional stoves, unless purchaser chooses to put in a heating system. Fire risk is reduced by masonry fire-stops in partitions at floor levels, and fire-resisting shingles. The distance between houses is greater than required by most careful housing laws.

In the following description of the types of houses the contract price for construction is given. To this construction cost is to be added the value of the lot, cost for street improvements, architect and incidentals. The types of houses are:—

Type 1.—Four five-room detached cottages, shown on pages 16 and 17, placed on lots 3, 4, 5 and 8 (see plan, facing page 15). Construction cost, \$2,333.85 each; dimensions, 18' x 22'; cubic contents, 10,692 cubic feet; floor space, 620 square feet. On the ground floor, living room, 14' x 8' 4"; parlor (may be used as bedroom), 7' 6" x 10' 6"; kitchen, 8' 8" x 10' 8", with sink and set tub under window, kitchen cabinet at left of sink, and range directly opposite sink; closet. On the second floor, two bedrooms, 9' 10" x 11' 10" and 10' 6" x 10' 8"; bath, 4' 10" x 6'; two closets.

Type 2.—Two four-room semi-detached cottages (four houses), shown on pages 20 and 21, lots 6, 7 and 9, 10. Similar to type 1. Construction cost, \$1,952.85 for each dwelling; dimensions of each, 16' x 22'; cubic contents, 9,396 cubic feet; floor space, 606 square feet. On the ground floor, living-room kitchen, 12' x 15'; parlor (may be used as bedroom), 8' x 8' 6". On the second floor, two bedrooms, 9' x 10' and 9' x 10' 8"; bath, 4' 6" x 6'; two closets.

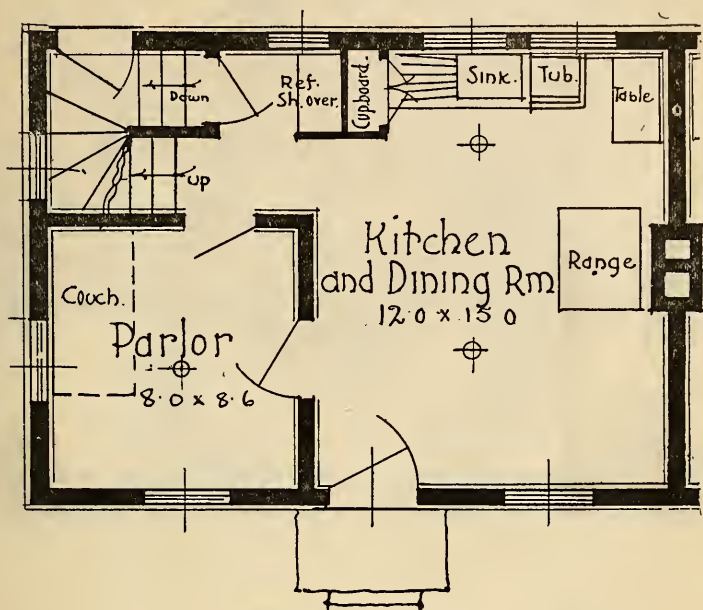
Type 3. — Four five-room detached cottages, shown on pages 22 and 23, on lots 2, 11, 12 and 13. Construction cost, \$2,381.65 each; dimensions, 16' 4" x 26' 4"; cubic contents, 11,180 cubic feet; floor space, 707 square feet. On the ground floor are arranged kitchen, 6' 9" x 11' 6", and dining room, 8' x 15', opening together practically as one large room; parlor, 10' x 15'. On the second floor, two bedrooms, 9' 9" x 11' 6" and 9' 6" x 15'; bath, 5' x 7'; two closets.



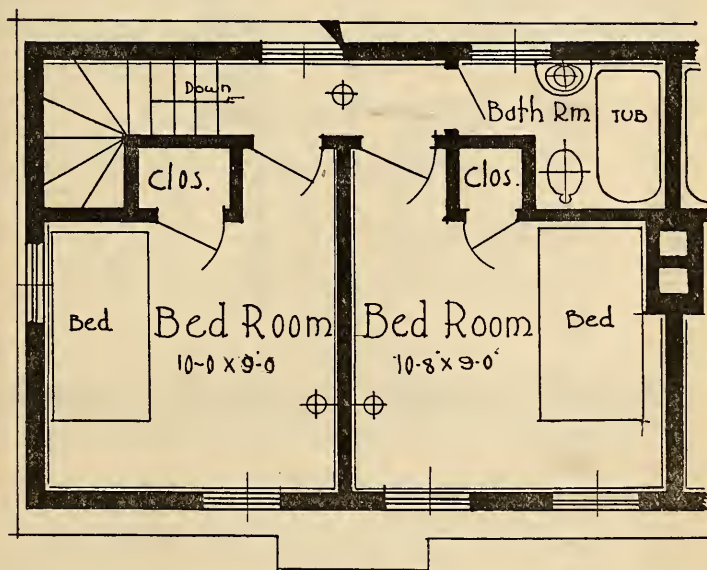
SIDE ELEVATION

FRONT ELEVATION

Type 2. — Four-room semi-detached cottage,
Kilham & Hopkins, Architects.



FIRST FLOOR PLAN



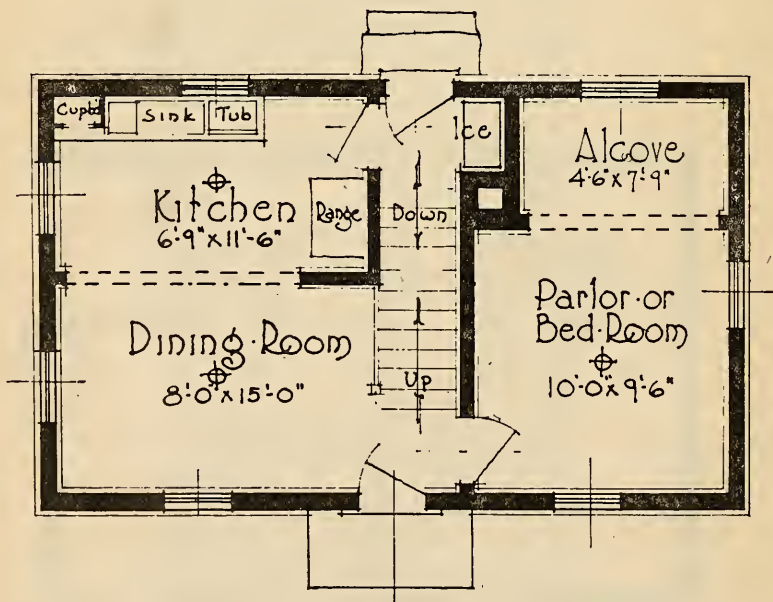
SECOND FLOOR PLAN

built on lots Nos. 6, 7 and 9, 10.

Arthur C. Comey, Designer.



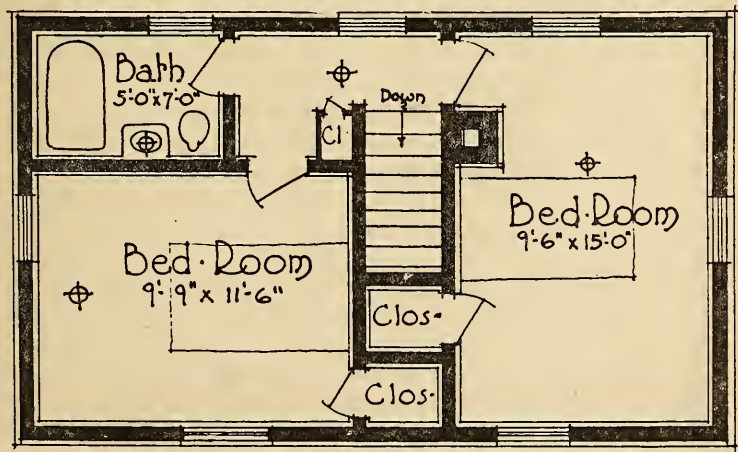
• FRONT - ELEVATION •



• FIRST - FLOOR - PLAN



END - ELEVATION -



SECOND - FLOOR - PLAN -

RESTRICTIONS FOR USE AND UPKEEP.

It is hoped by the following restrictions to stabilize values and prevent deterioration. They provide for proper upkeep and use of the property, with a requirement that when the buyer desires to sell he shall first offer to the Homestead Commission.

Restrictions created by the Massachusetts Homestead Commission for and in behalf of the Commonwealth of Massachusetts upon all of the lots included in contract of land bounded and described as follows:.....

.....

 said restrictions being imposed upon said premises for the benefit of all said parcels of land in pursuance of a general scheme by which all said land is to be developed by the erection of detached and semi-detached buildings harmonious in design and substantial in construction, so located that ample open or free spaces shall be left about them, adapted for use as and to be used only as private residences, and all with a view to promoting and preserving the residential character of the neighborhood.

1. No sale of the land hereby conveyed shall be made by the grantee or his heirs, successors and assigns without first offering the same to the Massachusetts Homestead Commission or its successors at a price to be agreed upon between the owner and the Commission, or, in the event of a failure to agree, the price to be fixed by a board of arbitration, consisting of one person named by the Massachusetts Homestead Commission, one person to be named by the owner, and one person to be named by the two arbitrators, chosen by the parties, and the option to said Homestead Commission shall remain open for thirty days thereafter.

2. No building shall be erected or maintained on the premises, except one private dwelling house, designed for and occupied by not more than one family, and to cost not less than \$1,500 excluding the land, and such outbuildings not more than one story in height as are incidental to residential use.

3. The building upon the granted premises shall be occupied and used for private residence only, and there shall not be permitted, maintained or carried on upon the granted premises or any part thereof any trade, business or profession inconsistent with and apart from such occupation, nor shall they be used as a place of storage, keeping or handling of any article inflammable, easily combustible or dangerous or detrimental to life or health.

4. No building shall be erected or maintained nor any substantial alteration made in an existing building until the approval in writing of the Massachusetts Homestead Commission has been obtained.

5. No houses shall hereafter be erected, enlarged or placed with the side walls, bay windows or other projections nearer than 10 feet to the

line of any adjoining lot, or any street path or public path, nor shall any lot be changed in size so as to bring the side walls, bay windows and window sills of any house nearer than 10 feet to the line of any adjoining lot except as provided in the following clause: The Homestead Commission or the owners of two adjoining lots if they so agree in writing, however, may erect a group of two attached houses or outbuildings with a party wall upon the property line between such two lots. No alteration of any building standing upon any lot, nor any new building constructed thereon, shall be permitted which shall obstruct a yard extending across the entire width of the lot. Such yard shall at every point remain open from the ground to the sky unobstructed, and every part of such yard shall be directly accessible from every other part thereof. Such space shall never be less than 25 feet in depth.

6. No alteration shall be permitted by which any room in said house shall not be directly lighted and ventilated by a window to the open air.

7. The premises are conveyed subject to the restriction that the premises shall, at all times, be maintained in accordance with the laws of the Commonwealth and the city ordinances, and rules of the Board of Health, concerning nuisances, fire, health and buildings. Any conviction for such violation of law or ordinance shall be conclusive evidence of the breach of the restriction.

8. The grantor expressly reserves easements and rights of way at convenient places for the construction and maintenance of poles, wires and conduits for the transmission of electricity for lighting, telephone and other purposes, and of the necessary attachments in connection therewith, and for public and private sewers, storm water drains, land drains, water, gas or other pipes and any other method of conducting and performing any public or quasi-public utility or function beneath the surface of the ground. Such easements shall be confined to the rear 3 feet of all lots. And the grantor shall have the right, without liability for damages for trespass, to enter upon said land at any and all times for any of the purposes for which said easements and rights of way are to be reserved.

9. The grantor expressly grants and reserves easements of way in all streets, private ways, footpaths and parks shown upon said plan for all purposes for which streets, private ways, footpaths and parks are commonly used in the city of Lowell. The grantor does not convey to the grantee the title to the land in any street, private way or park shown upon said plan, but retains the right to convey at some future date all of its rights, title and interest in all streets, ways, footpaths or parks shown upon said plan to any public authority should the grantor at any time deem it expedient so to do.

10. Violation of any of the restrictions or conditions or breach of any of the covenants and agreements herein contained shall give the grantor the right to enter upon the property, upon or as to which such violation or breach exists, and summarily remove at the expense of the owner thereof any erection, thing or additions that may be or exist thereon

contrary to the intent and meaning of the provision hereof; and the grantor shall not hereby be deemed guilty of any manner of trespass by such entry, abatement or removal.

11. The provisions herein contained shall inure to the benefit of and be enforceable by the grantor, or by the owner or owners at any time of any property forming part of said parcel of land, their legal representatives, heirs, successors and assigns, and failure by the grantor or any property owner to enforce any of such restrictions, conditions, covenants and agreements herein contained shall in no event be deemed a waiver of a right to do so thereafter.

12. These restrictions shall continue in force until April 1, 1948: *provided, however*, that if a majority of the owners of land holding title on March 1, 1948, shall file prior to April 1, 1948, an agreement to continue said restrictions in force, they shall so continue in force until April 1, 1978.

The Present Housing Situation.

Since the opening of the world war, the housing situation in all belligerent nations has become more acute than has ever before been known. In countries where no actual destruction of homes has taken place, the shifting of population has caused a concentration at numerous points that not only threatens health, morals and some of the common decencies of life, but greatly lowers efficiency, retards production of needed war materials and supplies, and breeds a discontent marked by tardiness, irregularity and frequent changes in the working personnel of essential industries that is almost a national disaster. Even now, while the terrible strain of the struggle is still on, some governments are building freely, and are making extensive plans for the present and future housing of war and other workers, and wounded and returning soldiers. News reports credit Great Britain with having already expended \$400,000,000 in this work, and plans contemplated call for the ultimate expenditure of several times that amount. Reconstruction and new construction in the devastated lands would seem to call for their utmost resources.

The shortage of wholesome dwelling places that existed in all countries before the war began has been further emphasized by an almost complete cessation of house building everywhere. Curiously enough, the slowing down of house building is often most marked in those places where the need is greatest. In some localities rents have advanced even more rapidly than

other necessary costs of living. Some communities report thousands of beds being used the whole twenty-four hours in three shifts, each sleeper being limited to eight hours' occupancy. Careful consideration of public welfare would seem to call for legislation to eliminate these conditions where they now exist, and prevent their appearance in other localities. Public needs seem to demand that at least during the war period public funds — national, State or local — should be advanced to make provision for enough wholesome habitations to meet actual present needs. Some discussion has arisen regarding the provision of temporary or permanent dwellings during the present war emergency. If it were certain that barracks, dormitories and other temporary structures would be demolished when the emergency ends, there might be some excuse for the provision of such structures. But it is greatly to be feared that such buildings, instead of being pulled down, will be turned into tenements at the close of the war and degenerate into slums or undesirable conditions. If their building proves anywhere to be necessary, they should be so planned and restricted as to be incapable of reconstruction into unwholesome tenements. The cost of permanent over temporary construction is not so great as to make the former impossible, and if well-built, properly placed houses are supplied they will be a permanent asset in any community.

The national homestead experience following the Civil War and the consensus of present opinion in foreign countries seem to indicate that a considerable percentage of returning soldiers, wounded or unwounded, will be glad of a homestead with sufficient land for self-support. A little forethought would supply all the opportunities of this kind that may be desired. The vacant urban, suburban and rural lands of Massachusetts, if made available, would offer ample opportunities for all who may be willing to take advantage of them, whether soldiers or citizens.

Public Benefits.

Some of the public benefits to be hoped for as a result of increasing the supply of wholesome homes are indicated by reports concerning English "garden" developments. Bournville, situated within 5 miles of Birmingham, has a population of

5,000, 925 houses, 7 to 10 houses per acre, and not more than one-fourth of each plot covered. The land as ordinarily farmed produced about \$25 per acre. It now returns a product of about \$150 per acre, besides housing 30 persons per acre.

For the five years ending 1914, the death rate in Bournville was 4.9 in 1,000, as compared with 14.4 for the near-by city of Birmingham, and 13.8 for England and Wales. The infant mortality per thousand live births was 40.6 for Bournville, 125.4 for Birmingham, and 108.6 for England and Wales. The Bournville boys twelve years old weighed 71.8 pounds, as opposed to the weight of 63.2 for the slum boys. Twelve-year-old Bournville girls weighed 74.7, compared with 65.7 for the slum girls. In height, the Bournville boys of twelve measured 54.8 inches, the slum boys 52.3; Bournville girls of twelve, 56 inches; the others from the slums, 53.1 inches.¹

City and Town Planning.

While some of the local planning boards established by the General Court on the recommendation of the Homestead Commission² have been inactive, the work of some of the boards has resulted in improvements of great value to their communities. Even in communities where no actual work has followed the recommendations of the boards, the fact that sensible, effective planning of the growth and development of cities and towns would be productive of great conveniences and economies, besides saving lives and promoting health and general well-being, has been brought to public attention. There is much encouragement in the thought that thousands of people who a few years ago had never heard the term, now know that city planning is of great value if not an absolute necessity for communal life.

The city and town planning acts of 1913 and 1914 have resulted in the appointment of over fifty local planning boards. Six cities and six towns, listed below, have ignored the law. Proper planning and good housing laws, with efficient enforcement, are essentials of wholesome community life.

¹ "Man Power from a British Model Town," Evening Post Magazine, April 27, 1918.

² Chapters 491 and 595, Acts of 1913, and 183, Acts of 1914.

<i>Cities.</i>	<i>Towns.</i>
Fall River.	Danvers.
Lynn.	Greenfield.
Marlborough.	Milford.
New Bedford.	Saugus.
North Adams.	Webster.
Peabody.	West Springfield.

The attitude of local public officials has not generally been encouraging to the proposition that the growth and development of cities and towns should proceed in accordance with well-considered plans. Failing to grasp the fundamental fact that proper planning will save, and not spend, the public funds, and not realizing that unrelated, haphazard efforts are wasteful beyond conception, petty officials haggle over the pennies needed to make proper plans while they sacrifice thousands of dollars and the future well-being of their communities by proceeding without forethought or system, making changes here and improvements elsewhere, with no logical sequence and no apparent relation to each other. The results are disastrous to the public health, convenience and finances. Proper planning would stabilize values, save much of the cost of necessary improvements, and bring much-needed revenue to the public treasury; would promote public convenience and give greater safety from accident and fire, and save thousands of dollars by effecting economies in transit and transportation; would promote health and make life more wholesome and the city more beautiful. The failure of the public and public officials to appreciate these facts is a great obstacle to city planning.

Following is a brief summary of activities, or inactivities, of the various boards: —

Adams. — Last report, 1914.

Amherst. — Recommendations for town maps; renaming streets; building laws; street betterment.

Arlington. — Building lines on Massachusetts Avenue; layout of new street from Massachusetts Avenue to Mystic Street.

Attleboro. — Lighting system installed in main streets; ordinances to relieve traffic conditions; home gardens; clean-up campaign; recommendations for widening of South Main

Street; Monument Square to be laid out as a one-way thoroughfare; board of survey.

Beverly. — Survey of city delayed; recommendations to widen certain streets; numerous local recommendations.

Boston. — This local planning board has been particularly active from the date of its appointment. It has made a study of the larger aspects of passenger transportation in the metropolitan district; a topographic survey of the business district; widening and straightening of main thoroughfares; surveys of East Boston and the North End sections; studies of locations and extensions of various playgrounds.

Brockton. — Extension of streets for the relief of traffic congestion; development of parks, playgrounds and civic center; building laws; topographic survey.

Cambridge. — Traffic posts in Central Square; maps giving comprehensive plan of city; planning for districting; removal of overhead wires; study of playgrounds.

Chelsea. — Last report, 1914.

Chicopee. — Last report, 1916. Exhibit at Springfield Planning Conference; propose to create an "Official Plan" of city; numerous local recommendations.

Clinton. — Urged citizens to keep yards clean and made recommendations regarding better fire protection; guide boards; development of Depot Square.

Dedham. — Organized, 1918.

Everett. — Last report, 1915.

Fitchburg. — Commission created by special act, prior to passage of city planning law of 1913. Work for 1917 largely in connection with proposed revision of building code. Important street widenings postponed because of war conditions. Smaller local improvements recommended and adopted.

Framingham. — Present board created March, 1918; making careful studies; have offered plans and recommendations, some of which have been accepted, others pending.

Gardner. — Last report, 1914.

Gloucester. — No report.

Haverhill. — Board created January, 1917. Suggested renaming numerous streets having duplicate names; also, various street widenings and greater uniformity in construction of

gutters and sidewalks; on some residential streets narrower sidewalks and grass plots; much time and attention given to home gardens and agricultural education; building code recommended; City Hall Park should be a civic center.

Holyoke. — Last report, 1915.

Hudson. — Last report, 1915.

Lawrence. — Last report, 1915; secretary states that extensive plans already formulated provide for a long time in the future.

Leominster. — Widening of Merriam Avenue recommended; greater care in upkeep of streets and sidewalks suggested.

Lexington. — Organized, 1918.

Longmeadow. — No report.

Lowell. — No report.

Malden. — Last report, 1915.

Medford. — Last report, 1916.

Melrose. — Report of 1917 deemed it unwise to submit further plans requiring additional expenditures. Recommended that waste materials for filling be used on city instead of private land and the land properly graded; buildings which are a fire hazard be torn down.

Methuen. — Last report, 1915.

Natick. — Active in billboard legislation and fishing privileges in Lake Cochituate; suggests system street grades and surface drainage; also building regulations and establishing of building lines.

Newburyport. — Last report, 1914.

Newton. — Recommended various setbacks and street widenings which were in part adopted; illustrated report to show conditions which ought to be remedied.

Northampton. — Secured marking of cross walks on Main Street; recommended that proper signs be placed at designated approaches to city, which was referred to highway committee; also, that alleys in rear of street blocks be improved, and changes made at corner of State and Elm streets.

Norwood. — No report.

Pittsfield. — Last report, 1915, but task of providing location and plans for a contagious hospital was assigned to board; plans made and funds provided, but work temporarily halted.

Plymouth. — No report.

Quincy. — Plan for extension of Des Moines Road, giving direct thoroughfare from heart of city to Fore River works; studies for new street through Town Brook Valley and footpath from Granite Street to Quincy Station made; building line recommended; plan for surface drainage for city formulated; study for extension of Hall Place; footpath from Common Street to give access to branch library, parkway and Willard School recommended; also, footbridge to connect Merrimount Park with Pine Island; increased playground facilities; recommendation regarding City Square Park.

Revere. — Building lines established on Central Avenue; recommended establishing of building lines on other streets; Ocean Avenue reconstructed; secured sewerage to development of property at Point of Pines; secured removal of two unsightly buildings.

Salem. — Elm-Walnut Street widening; new thoroughfare from Highland Avenue to Hawthorne Place; removal of street railway tracks from certain streets; plans for Nauvoo Triangle.

Somerville. — Last report, 1915.

Southbridge. — No report.

Springfield. — Last report, 1915, members of board now in war work.

Stoneham. — Building lines; board of survey; renaming and renumbering of streets; billboards; State boulevard.

Taunton. — Recommendations for layout of streets; tenement-house ordinance; extension of playgrounds; development of East Taunton; lectures on effect of good city planning.

Wakefield. — Board of survey secured. Work restricted by war activities.

Walpole. — Last report, 1916. Recommendations for town government.

Waltham. — Last report, 1914.

Watertown. — Plans for layout of area east of Common Street; actively engaged in making recommendations regarding the housing of war workers.

Westfield. — Building code formulated; building lines on one street; removal of certain billboards; work on comprehensive map of town continuing.

Weymouth. — War conditions have limited the work of the board.

Winchester. — Building lines and playground recommendations adopted.

Winthrop. — Renewed former recommendations for boulevard between Revere Beach and Winthrop; that dangerous corners be remedied; that building lines be established on certain narrow streets; that certain areas be zoned; that public bathing accommodations be secured on harbor side of town.

Woburn. — Last report, 1915. Meetings discontinued until the close of the war.

Worcester. — Last report, 1916. War conditions have hindered progress on previous recommendations.

Bulletins.

During the year the Homestead Commission has published three bulletins, as follows: —

1. *Homestead Bulletin No. 6.* — Proceedings of the Fourth Annual Conference of the Local Planning Boards, called by Governor Samuel W. McCall on behalf of the Massachusetts Homestead Commission and the Massachusetts Federation of Planning Boards, at Springfield, Mass., November 23 and 24, 1916. Principal topics: Assessments of Betterments; Establishing Building Lines; Restrictions on Height, Use and Area of Buildings.

2. *Homestead Bulletin No. 7.* — The Lowell Homestead Project. Description, explanation and list of questions. December, 1917.

3. *Homestead Bulletin No. 8.* — Proceedings of the Fifth Annual Conference of the Local Planning Boards, called by Governor Samuel W. McCall on behalf of the Massachusetts Homestead Commission and the Massachusetts Federation of Planning Boards, at Worcester, Mass., November 14, 1917. Principal topics: City and Town Planning Urgent in War Time; Districting, or Zoning, for Height, Size, Use; Assessments of Betterments; Establishing Building Lines; Adopting Building Codes; Excess Condemnation.

Recommendation.

The Homestead Commission renews its recommendation of last year for an appropriation sufficient to allow an experiment or demonstration to be made in providing wholesome, low-cost

homesteads, or "small houses and plots of ground" for "mechanics, factory employees, laborers and others in the suburbs of cities and towns."¹ The considerations which last year induced the Commission to make this recommendation are set forth in detail in the fourth annual report, and are briefly as follows:—

There are not enough wholesome, low-cost dwellings.

There is no prospect that present methods will ever supply enough unless the State encourages their construction.

The State should therefore experiment to learn whether it is possible to build wholesome homes within the means of low-paid workers.

The Commission asked that \$100,000 be appropriated for this experiment or demonstration. The General Court of 1917 appropriated \$50,000, and a detailed statement concerning progress up to January 1, 1918, is made in this report. We ask for an additional \$50,000 to complete the project.

The Commission repeats that it is not recommending that the Commonwealth enter the real estate business for the purpose of supplying wholesome homes for low-paid workers, no matter how great the social or individual need may be. It only recommends an appropriation for a single experiment or demonstration, to learn whether it is financially possible to supply such homes for such workers, what are the principles and policies upon which such an undertaking should proceed, what are the dangers and what should be the limitations. The recommendation is embodied in the accompanying bill.

AN ACT TO AUTHORIZE THE HOMESTEAD COMMISSION TO PROVIDE HOMESTEADS FOR CITIZENS.

Be it enacted, etc., as follows:

SECTION 1. The homestead commission is hereby authorized to expend a further sum not exceeding fifty thousand dollars for the purpose of relieving congestion of population and providing homesteads for mechanics, laborers and others, in accordance with the provisions of chapter three hundred and ten, General Acts of the year nineteen hundred and seventeen.

SECTION 2. This act shall take effect upon its passage.

¹ Chapter 607, Acts of 1911.

The Commonwealth of Massachusetts

SIXTH ANNUAL REPORT

OF

THE HOMESTEAD COMMISSION

1918



BOSTON
WRIGHT & POTTER PRINTING CO., STATE PRINTERS
32 DERNE STREET
1919

PUBLICATION OF THIS DOCUMENT
APPROVED BY THE
SUPERVISOR OF ADMINISTRATION.

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The Commonwealth of Massachusetts

BOSTON, December, 1918.

To the Honorable Senate and House of Representatives.

In compliance with the provisions of chapter 714 of the Acts of 1912, and chapters 494 and 595 of the Acts of 1913, the Homestead Commission, created by chapter 607 of the Acts of 1911, has the honor to submit the accompanying report and bills.

CHARLES F. GETTEMY, *Chairman.*

AUGUSTUS L. THORNDIKE.

KENYON L. BUTTERFIELD.

GEORGE CHANDLER WHIPPLE.

EVA W. WHITE.

WARREN DUNHAM FOSTER.

ARTHUR C. COMEY.

WALTER L. McMENIMEN.

CORNELIUS A. PARKER, *Acting Secretary.*

REPORT OF THE HOMESTEAD COMMISSION.

During the year 1918 the Commission has been somewhat handicapped by the fact that many of its members have been doing war work in other fields.

Kenyon L. Butterfield, who gave during the greater part of the year much of his time to work in Washington, in November was called to the educational work approved by the war department and undertaken under the auspices of the Y. M. C. A. in France. Warren Dunham Foster, through the Community Motion Picture Bureau, took charge of all the motion picture work done under the auspices of the Y. M. C. A. abroad and in America. This has necessitated frequent absences from this country, and has made it possible for him to spend very little time in Boston. Mrs. Eva W. White early in the year engaged in work of the Community Camp Service in Washington. Mr. Arthur C. Comey was in the service of the United States Housing Corporation in Washington during the year. The secretary of the Commission, who has been connected with the work since its inception, resigned in September to take up other work in Washington. No one who has not been actually identified with the work of the Homestead Commission can appreciate the earnest and efficient service which Mr. Sterling has given to the cause of better housing. The members of the Commission can realize better than any one else what a real loss his departure has been. Prof. George C. Whipple was a member of the United States commission to Russia, and was absent for a portion of the year.

Lowell Housing Project.

A CONTINUATION OF 1917 REPORT.

This report, so far as it relates to the building of homesteads, is but a continuation of the report of 1917.

In submitting the same, it seems wise to call attention to certain facts which may have escaped the attention of the Legislature and the citizens of the Commonwealth.

First, the building project turned over to the Commission by the Legislature was and is an experiment. In carrying out this experiment it was necessary —

1. To select some locality where there was an evident need of more and better houses.

2. To develop a tract of land as a unit. In other words, the tract chosen must be of sufficient size so that it would have character of its own, where each house and lot would not be subject to fluctuations in value because of inability to control building on surrounding lands. Further, it was desired to form a community of the owners, that a spirit of co-operation might be developed for mutual benefit.

3. That such a project should include different types of houses adapted to accommodate different-sized families.

4. That construction be good. "Jerry" building must not be used, and material and work must be such that twenty years hence the buildings would not be a group of shacks.

5. That the central idea of the whole experiment be the development of a house with a garden plot. This was deemed essential for several reasons: first, that the produce might furnish a partial offset to rental value or cost of interest and maintenance; second, that the owner might, in normal outdoor exercise, have some offset to his day's confinement in the mill or factory; third, that the children might be educated to work in the garden with their parents, thus offsetting the influence of the street corner; fourth, to point the way to development of agricultural resources in suburban districts.

The method by which the Commission was to carry out its plans was clearly defined by statute. The Homestead experiment was in no sense a charity project. The constitutional amendment and the statute under which the appropriation was made provided that the house and lot must be sold for not less than cost. There was no expectation of any magic process by which a house that cost \$3,000 should sell at \$2,000, nor was there any plan suggested by the Commission for radically cutting the cost of building. The reasons urged for the experiment were (1) to determine what could be supplied within the workman's income; (2) to reduce the burden by giving a longer time for payment than is the practice of the

bank or individual; (3) to effect the economies of group building. While it is true that co-operative banks take care of 50 to 80 per cent of the full value of the property in fairly long-term payments, a considerable balance must be paid, and if the owner desires to borrow any portion thereof he has to pay enormous rates of interest.

It was hoped, also, to demonstrate the value of the cottage house as compared with the tenement house as a place for living and bringing up a family, the advantage consisting not only in increased light and air, but in the higher standard of citizenship which comes with the possession of a home.

Further, by making the building a part of a unit development, the values for which the purchaser pays will be protected from neighboring cheap tenement structures, which seriously affect those values and from which the average holder of small property has no way to protect himself.

The fact is clearly recognized by the Commission that there is a certain percentage of men who, under ordinary conditions, are incapable of earning a sufficient amount to make possible the buying or renting, even, of a decent tenement. The difficulty is one of physical or mental inefficiency or of an uneconomic distribution of the proceeds of labor. The only help which a State housing activity could give to these persons would be indirect. It is true, generally speaking, that whenever good houses for occupancy of people of limited means and income are built, whether at a very low cost or at a higher cost, the supply provided relieves the demand, causing the vacating of poor houses and thus, indirectly, conditions are improved all along the line.

It may be proper to say here that there has been no preconceived opinion on the part of members of the Commission as to the desirability of the State building houses for large numbers of workmen, in other words, going into the housing business. From the standpoint of the Commission, the housing appropriation was for the purpose of conducting an experiment. It was believed that the State might point the way for others. It has been the purpose of the Commission in carrying out its plans to have a considerable number of different types of houses, as to size and material of construction, in order to

demonstrate the desirability of different types of construction as adapted to the needs of the New England manufacturing city. Should the work be continued, the building of six-room houses is contemplated as the next stage in the experiment.

SUMMARY OF STEPS TAKEN.

Briefly, the steps taken by the Homestead Commission were as follows: After the passage of the constitutional amendment the Commission asked the Legislature of 1916 for an appropriation of \$50,000, which at that time seemed a possible amount on which to conduct a small experiment. The Legislature postponed action until the following year, in order that plans might be drawn and presented to the Legislature; and the Commission, after making a considerable study, decided that the sum of \$100,000 was required to make a minimum-sized experiment at the current market prices for labor and material. The Legislature appropriated \$50,000, and it is fair to say that the opinion expressed by various members of the committee and of the Legislature was that this amount would furnish the initial appropriation, and that further appropriations would be made for completion of the work later. With this small appropriation, made at a time of rapidly rising costs, the Commission undertook this work. After a careful examination of needs and conditions in the cities of the Commonwealth, Lowell was selected as a typical mill city. It is a city in which there are the average number of poor tenements, and one where the nationality of the population promised well in the interests of gardening plans. The city had a congestion of population and shortage of houses. While this was partly due to war conditions, it is true that congestion is a usual condition in Lowell. Further, the land values were not prohibitive.

Next, it was necessary to choose one of three types of plots, — a parcel a long distance from the city, depending on trains and trolleys, a suburban parcel within a single car fare, or one within walking distance of the factories. It was finally decided to buy within walking distance, for the first experiment. Then a careful study was made to determine what land was available. In this study the Board of Trade and

various people having a knowledge of local real estate conditions were consulted. The decision was arrived at on the basis of availability by reason of fulfilling the conditions above set forth. The tract most nearly fulfilling those conditions was one of approximately 7 acres on Hildreth Street. It was within walking distance of the large mills, adjacent to the Frederick T. Greenhalge School, and the surface of the land was nearly level except for one little depression running across the property, which fitted well into a plan giving a little park space. Further, the soil was tested by the Massachusetts Agricultural College and was found satisfactory for gardening purposes. In this respect the judgment of the Commission was amply justified, as appears later in this report. The members of the Commission were ignorant of the owner's name until by inquiry it was ascertained that it was the property of Princeton University, being a part of a considerable devise made by Isaac Wyman to the university. The land was taxed at \$16,500 and was purchased by the Commission for \$12,500, a fair price, probably, for both purchaser and seller.

An attractive plan for developing the plot was made by Mr. Comey of the Commission, who also assisted in the designing of the cottages. The Commission, believing that, while for some reasons it might be desirable to give the work to local architects, it was wiser to select architects who had specialized in the making of plans for workingmen's homes, employed a firm of Boston architects, who among other projects had furnished plans for the Salem Rebuilding Commission. While a number of different plans were worked out at the request of the Commission, particular attention was given to plans for small houses with four and five rooms, because it was desired to reach workers with as low wages as possible. While other plans were to be worked out later, it was deemed desirable that the first effort be to reach this class. These houses were not built primarily to compete with large roomy houses but with the tenement houses as the tenement-house dweller was deemed in greatest need of assistance.

The Commission advertised for bids on the types selected in local papers and the papers having a State circulation. Com-

panies specializing in 'standardized building were also notified. The lowest bid, that of a Lowell contractor, was accepted.

The plans of the houses built, with prices, are also included in the report of 1917. The terms of payment are based on the amortization tables on page 10 of the report of 1917 and are as follows: a payment of \$50 or \$100 down and monthly payments as below, including interest at 5 per cent and payment on principal. The period of amortization is sixteen years and four months.

LOT NUMBER.	Selling Price.	Amount of Subsequent Monthly Payments.
2,	\$3,100	\$22 88
3,	2,900	21 00
4,	2,900	21 00
5,	2,900	21 00
6,	2,450	18 00
7,	2,450	18 00
8,	2,900	21 00
9,	2,400	17 63
10,	2,425	17 81
11,	3,000	21 75
12,	2,900	21 38
13,	3,100	22 50

The 1917 report contains on page 14 a plan of the Homestead tract as laid out, and pages 16 and 17 and 20 to 23, inclusive, show plans of the houses erected, while page 15 contains the cost analyzed. Reference is made to this because the lots have been laid out and the houses constructed and sold on the basis and in the manner described in that report. A change was necessitated in the width of sidewalks and grass spaces in order to conform to the rules of the street department of the city of Lowell. The requirements for curbing, instead of graded grass spaces to the gutters, also made the public work more expensive and detracted from the beauty of the plan. However, these were not large matters. The houses when completed were attractive, and the lots and streets will be attractive when the street department completes the work upon the streets. Because of shortage of labor this has

not been done, and the seeding and planting of trees await the construction work of the city.

At the time of the completion of the houses there was a good demand for dwellings, and it may have been due to that as well as to the attractiveness of the houses and the comparatively easy payment system that the houses with two exceptions were all taken before the contractor had turned them over to the State. These two were taken immediately afterward. The last two to be sold were semi-detached houses, the preference being for the single house at a higher cost.

PURCHASERS OF HOUSES.

The following facts as to the purchasers may be of interest:—

-about sixty years old, worked for the same employer eighteen years, overseer in cotton weaving; wife and two grown-up children.
 -about forty years old, loom-fixer; wife, no children.
 -about thirty-three years old, an adjuster at Standard Oil Company; wife, no children.
 -about twenty-seven years old, clerk at United States Cartridge Company; wife, no children.
 -about thirty years old, foreman, tire and battery shop; wife and one child.
 -about thirty years old; wife and two small children.
 -husband a private in United States Army, France; two small children.
 -about thirty years old, machinist; wife and two small children.
 -about thirty-three years old, worker in engine room, cotton mill; wife and three children.
 -about forty-five years old, sister keeps house; machinist United States Cartridge Company; had been a member of the American Legion in Canadian regiment in France; no family.
 -about thirty-one years old, paper box maker; wife, no children.
 -about twenty-seven years old, mill operative in yarn mills.
- He was the first purchaser, buying the house about three weeks before he was married.

The Commission believes that these families are fairly representative of the class which should be reached by Homestead work. It is true that a four or five room house is not adapted to properly housing a large family of children, notwithstanding the fact that very large numbers of children are housed in tenements with much smaller numbering of rooms,

and much smaller floor space, without the advantages of ample light and air and proper sanitary conveniences. It may be said that houses costing as much as these are not within the reach of the man or woman receiving the lowest wages. From present indications, it is probable that in the future there will be a comparatively small number of men in regular employment who are not able to meet the payments on these places. It is true that in the future as in the past, there will be for a great many years a considerable number of people incapable of securing the wages to be self-supporting. The difficulty here is, as above suggested, either physical or mental inefficiency or an unfair division of the proceeds of labor, which is something no effort of the Homestead Commission can hope to remedy.

The State has expressly, in the terms of its constitutional amendment and statute, discarded any theory of charity or even of absorption of excessive land values in home building. The cost during the war was necessarily high, but comparing the same with that of privately built houses and houses built by the United States, the Commission is satisfied that their costs are not only reasonable, but perhaps among the lowest for good construction of any built during that period. It is unfortunate that, owing to the large amount of labor employed in Lowell upon war munitions, the close of the war forced many people out of employment, one corporation alone discharging about 10,000 men. For this reason, before the printing of this report and during the year 1919, several of the contracts for the houses were canceled. It is also true that the building of the Commission has met with some hostility from local interests, and comparisons have been made of the Homestead Commission buildings with those built by private capital in the near vicinity, the claim being made that the houses were larger and were sold at less cost. The answer is found in the comparison of the material and method of construction of the houses, which will be found to be well built in the case of the Homestead Commission, and in the fact that the others were built by non-union labor during the winter season, at a labor cost of approximately one-half of union prices. Certainly the State could not afford to meet this particular kind of competition.

SUCCESS OF GARDEN PLOTS.

In order to realize the idea which had been emphasized from the beginning of making the home garden a part of the development, the Commission out of its general funds employed an expert garden supervisor who gave part time to the Homestead work. The vacant portion of lots sold, including about one-half to two-thirds of the area of each, was planted with garden sauce of all kinds. In addition, the Commission opened the vacant land for war gardens, in plots of about 4,000 feet each, and furnished fertilizer and labor for ploughing the same at cost, which was \$5 per lot. There were 28 of these garden lots taken by near-by residents. The soil justified the tests made previous to purchase, and under the supervision of the instructor, in addition to providing ample garden sauce for the summer and considerable quantities of tomatoes, the whole tract averaged 28 bushels of potatoes to each lot, thus giving a net return of \$56 per lot on an average from the potato crop alone. It will be seen that if such results can ordinarily be obtained on a lot of 4,000 feet, the use of one-half of each lot built upon should net to each owner the equivalent of at least \$3 per month for a yearly outlay of \$5 plus the labor, which in most cases is a corrective of the fatigue of the mill rather than an added burden. Further, it has furnished a place where the children may learn habits of industry and helpfulness, giving them an opportunity to share in the family problems, and also to work hand in hand with nature, thus making them co-partners with its processes.

PRESENT STATUS OF PROJECT.

There has been repaid to the Commonwealth up to Dec. 31, 1918, the sum of \$243.95 in monthly installments. No appropriation was made by the Legislature in 1918 for the purpose of continuing the development.

Regarding the success of the Homestead Commission work, it is not possible for the Commission or any person to hazard any opinion worth while at this time. The only value of a small project of thirty or forty houses would be as a demonstration of the ability of the State to finance and sell houses.

meeting the demand of the workingman, giving him decent living accommodations in a house, with land adjacent for a home garden, for which he shall pay the cost without profit to builder and on terms that make it possible for him to purchase the same even though his capital and wages are small. In a strict sense the particular tract of this type cannot relieve congestion because it is too small to justify such large claims, but it may be most valuable in pointing the way to relief of congestion and the substitution of a better type of house than the tenement house or multiple dwelling which private capital has up to this date supplied for urban population. Certainly the building of twelve small houses on a tract which requires about fifty for a unit development can prove little either way. There must be a completion of the building up of the tract.

Housing Problem of To-day not being solved.

A study of congested districts in our large cities and of the type of dwellings being constructed by builders throughout sections now suburban but rapidly becoming central clearly demonstrates the failure of capital to realize and provide for the real need of the inhabitants.

Land is purchased by the tract. It is covered with multiple dwellings housing families on three or more levels, and the dwellers are told that these furnish cheap workingmen's homes because the same amount of land houses three families or more instead of one. From observation, however, it would seem that the builder capitalizes his land on the basis of the proposed intensive use, and an inflated value is included in the selling price or into the valuation on which the rental is based. Too frequently the buildings are constructed with the sole purpose of placing the largest mortgage possible and selling the house at a price and on terms which shall net the builder a good profit, allow him to collect the same, and leave the purchaser to take the depreciation which is sure to come within ten or fifteen years. This system frequently produces a district which is developed on the three, four and five tier basis with less than half the available lots being built upon, each lot being held until the demand comes for a similar

intensive use thereof. The evils of this system are that the purchaser, who invests a small amount and pays thereon, is paying not alone for the physical value of the house and land but usually for an additional inflation charged by the builder; that depreciation follows and he often loses his investment; that with this type of building near-by cottage, single or two-family houses are at once depreciated, the city as well as the owner suffering loss in taxable values; that with a considerable number of these there arises what is known as a blighted district where depreciation sets in. Frequently these houses are a great fire menace because of internal structure, and in large districts the outside construction and proximity to each other of large numbers of the same type of multiple dwelling cause a serious general conflagration hazard.

Importance of Proper Housing.

These objections are, however, largely economic, and the larger side of the problem, the social side, is yet more important. With the control of a whole house, from the land upward, comes an increased interest in keeping in good repair, and in keeping the district clean and in good condition. With a garden space available and used, comes the pride of production. If the tenant can own his own home, to these is added pride of ownership. All these are no small factors in the making of good citizens. This is not theory. It is a result actually shown not only in the garden suburb of England but wherever the citizenship of the cottage dweller and home owner is placed in evidence alongside of the tenement-house dweller.

In addition to this is the health factor, clearly shown in the mortality and health statistics of congested districts. There are further the education and influence on the growing child. The question is not, "Do you find some healthy children, some children growing up to be good citizens in the congested districts?" The question is, "As a whole, is the tenement-house district producing the type of men and women who will make the best citizens?"

Americanization is the great problem of to-day. No private interest must stand in the way, and the two fundamentals

that are recognized in the task of making true Americans are the knowledge of the English language and acquaintance with American standards of living. No man who has not at least some minimum standard of decency realized in his own home can make the type of citizen we want and need. Our country is in grave peril, and no stone must be left unturned in an attempt to find the solution.

The Homestead Commission is not as a commission favorable to government ownership of houses, whether State or municipal, at this time. It is in favor of completing its first experiment, in order to gain further light on the problem which up to date private capital has failed to solve.

City and Town Planning Board Reports.

The Massachusetts Federation of Planning Boards has been inactive because of the same conditions which face the Commission, — its officers having been engaged outside of Massachusetts. For that reason it is probable that less local activity has been shown. The reports from the different boards are summarized, as follows: —

Amherst. — The series of street maps exhibited the previous year were the subject of study and correction. The request for changing the name of School Street to Hitchcock Street was renewed, and it was also urged that the name of Maple Avenue should be changed to Bolton Avenue. The board suggested that to the plan of building a sidewalk on Lessey Street should be added the grading of the walk toward the top of the hill to a grade more nearly on a level with the street; and that a careful study of the desired extension of Boston Street, with a view to safeguarding the future, should be made.

Arlington. — The board held a conference with the board of survey concerning streets. Building lines on Massachusetts Avenue were recommended. Crusher lot was recommended for park purposes. Sucker Brook improvement was suggested, and also the development of the cemetery. The most important development was the Summer Street State highway.

Attleboro. — Garden work was taken over by the school department. The board urged a clean-up week. The plan of widening

Park Street was accepted. A new street from Union Street to Pine Street, the widening and improvement of certain streets, and also relief from congestion due to trolley switches at Mill Street were recommended.

Beverly.—The board recommended adequate appropriation and support; a uniform system of signs; extension and widening of certain streets; and for a war memorial, an auditorium with a large memorial hall, this to be used as a community center.

Boston.—Many problems were considered: improvement of streets; development of park spaces and playgrounds; playground sites; athletic fields; improvement of beaches; sites for municipal buildings; and development of civic centers. Much time was spent in the consideration of the housing problem. A plan was submitted for a western artery,—a thoroughfare to provide adequate communications east of Washington Street at south, and west of Castle Square at north. If this plan were carried out in its entirety it would be at no cost to the city. A North End survey was made to show present conditions and the trend of development. The North End is an area of about 100 acres, 70 of which are residential. It is a congested tenement district, much in need of improvement. Rehousing and decentralization were considered as a possible solution. A thoroughfare is needed to connect Charlestown bridge with the market district. Only one-half of the necessary park space is available. Any plan should cover the future. Piecemeal improvements, unless they follow some definitely laid out plans, are very unwise. A plan is needed to restrict the height of buildings, the percentage of the lot covered, the use of buildings, and classes of construction. The city would be justified in spending the necessary amount for improving the section because of the returns in improved living conditions and in the health and morals of the residents.

Brockton.—The board printed as its report a program of the city planning procedure for Brockton planned by Mr. Arthur C. Comey. This program is divided into three heads,—surveys and maps, plans, and action. The board reported the acceptance by the city council of the board of survey act, chapter 190, General Acts of 1916.

Brookline. — Recommendations concerning the laying out of certain streets were renewed, and the establishing of new building lines was recommended. The electrifying of the Boston & Albany Railroad, and connecting it with the Boston Elevated system was suggested as a possible solution of the transportation problem. Legislation was recommended to provide that before land is purchased or used for public purposes the matter be submitted to the planning board. The question of public garages and parking spaces was considered, and a war memorial suggested.

Cambridge. — The board is collecting a library on city planning. The principle of districting was approved and a districting commission appointed. Elimination of overhead wires was recommended, and co-operation with neighboring municipalities was suggested. The board considered the question of street playgrounds, but a separate area for play was recommended. In view of the fact that the building of a city factory on the Charles River "front" was contemplated, the extension of the present park and the building of an attractive "loft" factory in the rear was suggested. Other recommendations were: white bands on pavements for cross walks at Central Square; a listing of all vacant property; and improvement of street and traffic conditions. For the coming year the board is to concentrate on districting.

Chicopee. — The year was devoted to the study of the industries and in getting out a report on that subject. The board recommended that Front Street be improved; the paving of West Main Street; the macadamizing of Fairview Avenue; the laying of double tracks from Fisk Park to the junction of St. James Avenue and Broadway by the Springfield Street Railway Company, and that an appropriation be made to cover cost of building retaining walls opposite the almshouse and at the electric light station's pond. The board also recommended that the sewer committee and the city engineer, together with members of the City Plans Commission, be instructed to develop a new sewer system. An appropriation was urged for the building of a new police station, the old one having been condemned by the board of health, and an appropriation to cover the building of a fire station in Aldenville. An ordinance to establish building lines was suggested.

Clinton. — The board reported that the Lancaster Mills had erected seven double tenements for employees and opened up a new street, which adds greatly to the general appearance of the neighborhood, and that the general housing conditions show some improvement. The board spent some time in efforts to obtain lower rates of insurance on property owned by the town. The extension of the limits of the fire district is desired. A report was submitted on the question of a snow screen for Boylston Street. A memorial park at Depot Square was suggested, also the planting of individual trees as a memorial to those who gave their lives in the war. An appropriation for that purpose was asked for, and also an appropriation for the purpose of placing guideboards throughout the town.

Dedham. — This planning board has the powers of the Park Commission. It recommended the change of street names to prevent duplicate, the improvement of the swamp district, and the acceptance of Riverside Drive. The bathhouses were kept open from May 30 to September 15. The board employed Arthur A. Shurtleff to make a study of the town and to suggest improvements. Following is a summary of his recommendation: improvement of the swamp district; communication with isolated districts; street improvement; enlargement of Town Square and Boyden Square; zoning; extension of park areas; improvement of grounds at Oakdale Library Branch; purchase of land at bathhouse; and a footbridge and playground at Stone Park. He suggests for immediate study the highway system, set-back lines, and the problems of marshes and streams.

Everett. — The 1916-17 report is the last one that has been submitted. The introduction of House Bill No. 1408, providing for the taking of land by the Commonwealth at Broadway and Main Street for park purposes, was the result of a recommendation of the board; also the improvement of the square at the junction of Shute and Sea streets. Miss Ruth Sherburne and Miss Mary Stuart Fellows have given lectures on playground and recreation work. The board recommended a street from Calhoun Avenue to Clifton Avenue; development of the water front; shade trees; widening of certain streets; elimination of overhead wires; building lines; care and selec-

tion of dumping areas; the taking of area at junction of Broadway and Main Street for park purposes; a beauty space at Parlin Library; the location of a street through land of the Woodlawn Cemetery Corporation; and the prevention of duplicating street names. In 1917 there were only two members and no new appointments.

Fitchburg. — The term of office of the Municipal Development Commission expired legally in 1918, but the city passed an ordinance for a new commission of the same name to continue the work. The Commission reviewed the work of the past five years and suggested that a definite program of improvement be planned for the future.

Framingham. — The board has given all the aid possible to the relocation and contemplated changes at Framingham Junction, Buckminster Square, Pleasant Street, Framingham Center and Winthrop Street. Drainage near Cedar Swamp was referred to the planning board and the board of public works for a report. Plans were considered for a drinking fountain at Nobscot village.

Gardner. — The board held one meeting, electing a chairman and a secretary.

Haverhill. — The board recommended that inspectors be appointed to study housing conditions, and that they be given authority to remedy bad conditions. The report of 1917 was again recommended. The development of the area bounding City Hall Park as a civic center was urged. Plans for Forefathers' Day, 1920, should be started. The board submitted these suggestions for a soldier memorial: first, take Lake Salstonstall from the water board, put it into the park department, and then construct an Army and Navy boulevard around the lake; second, take the land on the delta and utilize it as a place for band concerts, bathhouses, etc., to be known as the Army and Navy Park; third, construct a park and boulevard along the banks of Little River with skating and bathing facilities; fourth, construct a new bridge over the Merrimack River, constructing appropriate entrance gates for boulevards or bridge. A memorial of a more inclusive nature to honor all soldiers from the days of 1776 to the present time was also suggested, — a memorial building to be used as

a place for war relics, a gathering place for veterans, and a community center. In this building might be held classes for the study of English, and lectures of an educational nature might be given here; also a new home for the public library might be provided. Conservation of land and water power was urged, and the problems of the housing of returned soldiers and congestion were brought forward.

Holyoke. — No formal report was submitted. The board conferred with the mayor relative to the annual highway appropriation.

Leominster. — The board suggested street improvements and the use of waste land for war gardens.

Lexington. — The board reports co-operation with the cemetery committee on plans for a new cemetery. A map of the town was recommended. The large areas of undeveloped land show the need of town planning. New lines of highway were recommended to relieve traffic congestion.

Medford. — Resignation of appointed members, suggestions disregarded, no funds, no co-operation, is the word that comes from a former member of this board.

Natick. — The petition relative to billboard advertising was adopted. When new streets are to be laid out, it is recommended that the board be consulted, and also that the grades of the streets be shown on the plans. More co-operation of departments is desired. In the development of West Natick, building lines are recommended and also the acceptance of the State law relative to the same. The drainage problem at Felchville was considered, and a report submitted on the south arm of Pegan Brook drainage problem.

Newton. — Meetings were devoted to the study of future development. Some of the members co-operated with the Charles River Valley Homes Committee in the study of the housing problem. Attention was again called to the projects formerly recommended. The mayor has approved of the employment by the board of an expert on town planning who is to outline a plan for future work.

Quincy. — Ten meetings were held. The housing project received a good start in the development in the Fore River district. The suggestion was renewed that if possible the

1919 council accept the offer of Mr. Henry M. Faxon of the playground between Woodward Avenue and Valley Street. It was recommended that from 1,200 to 2,000 young white pines be bought and planted in Faxon Park. An order requesting the State Highway Commission to estimate on the plan of the Pilgrim highway was filed with the Legislature. In connection with this plan a contest was held in the public schools and two cash prizes were awarded. The board recommended the acquisition of land from South Street through to Quincy Avenue for the new Pilgrim Parkway. The order for the extension of Des Moines Road to South Street was again recommended. The report includes pictures of the Shedd Memorial and of the Recreation House in connection with the Fore River dormitories, also three views submitted by the school children, a map of the Pilgrim Parkway and highway, and a plan for the Baker basin. The suggestion of the mayor was indorsed regarding a memorial arch at Hancock Street. The board renewed its approval of the project for a tidegate at Black's Creek. In opposition to the proposed location of a telephone booth in the square, the board suggested the construction of an island platform for this booth which would also serve as a safety island between the tracks. At a hearing of the special commission on grade crossings the proposed public passageway was again recommended. A formal protest was made against the continuation of the Baxter delta. The board emphasized the fact that the end of the war brings an opportunity for the cities and towns to provide proper housing, to maintain high standards of living throughout the community, and to provide means of relaxation, recreation and amusement for the people.

Reading. — The board investigated the present cost of automobiles owned by the town; submitted a municipal garage report; recommended the removal of billboards, the improvement of Reading Square, and the procuring of town maps.

Salem. — The report of 1917 was again recommended.

Stoneham. — The board listened to a talk by Mr. Flavel Shurtleff. The board recommended the renaming of streets, that efforts be made to secure land for a rounded corner at Franklin

and Main streets, the improvement of Tidd Street, and a soldier memorial.

Taunton. — This board initiated a prize competition, with a cash prize of \$150. Plans for attractive houses for workingmen were asked for, with the purpose of selecting a design in accordance with which working drawings might be made which should become the property of the planning board, and copies of which might be sold. Six plans were submitted, the prize going to George Wright Briggs. Public improvements were suggested: building lines at East Taunton; the removal of overhead wires; increased safety of traffic by means of rounded corners for sidewalks and street intersections; districting laws; and the enlargement of the Hopewell School yard. These ordinances were proposed: the submission of proposed layouts to the planning board, giving the board advisory power, and the pending ordinance, which should not be delayed longer, prohibiting the erection of wooden dwelling houses of three or more stories. The board recommended that plans be formed for the erection of a "victory hall" as a soldier memorial. For the future, the development of the park system along Mill River should be considered and the city should get control of the land and preserve the trees.

Wakefield. — The work has been confined to the study of various questions to be taken up in detail the coming year.

Watertown. — A topographical survey of land west of Common Street to Carroll Street was made, and a layout of streets continuing the plan of Meeting House Hill and adjacent territory presented in last year's report was completed and plans were included in the report. The Charles River Valley Homes Committee was formed to deal with the problem of housing for war workers in the industrial plants in and about Watertown.

Westfield. — The board recommended the carrying out of the plans made before the war. Ratification by the town was reported of the constitutional amendment permitting legislation to regulate the use of billboards, and also the ratification of the building law. Action by the voters on the building code was requested. Improvement was accomplished in the removing

of the rubbish in the neighborhood of Main, George, Frederick and Farmer streets. The valuable aid rendered by Mr. John L. Hyde, former town engineer, was recognized in the report.

Weymouth. — No formal report. The board met regularly to discuss plans and consider future recommendations.

Winchester. — The board reported co-operation with the Park Commission in the development of a thoroughfare from the center of the town to the northerly section, and recommended that steps be taken to make Railroad Avenue a public way. An appropriation was recommended for the building of sidewalks, and the extension of building lines was urged. Attention was called to the need of extending the fire limits. Suggestions from individuals in the town were requested.

Winthrop. — The need of remedying poor housing conditions in poor sections was pointed out. There is still need of improving dumps and more frequent inspection of plumbing and drainage systems. Town support of the State amendments authorizing the regulation of advertising and of building was urged. The need of bathing facilities for the northwest side of the town was pointed out. Street improvement was recommended, and the danger of backyard development was emphasized. An auditorium for a war memorial was suggested.

The following cities and towns of over 10,000 population have no planning boards: —

Danvers.	New Bedford.
Fall River.	North Adams.
Greenfield.	Peabody.
Lynn.	Saugus.
Marlborough.	Webster.
Milford.	West Springfield.

These boards have been reported inactive: —

Adams.	Plymouth.
Gloucester.	Revere.
Hudson.	Southbridge.
Lawrence.	Springfield.
Lowell.	Waltham.
Pittsfield.	Woburn.

No reports have been received from the following: —

Chelsea.
Longmeadow.
Malden.
Melrose.
Methuen.¹
Newburyport.

Northampton.
Norwood.
Somerville.
Walpole.
Worcester.

Recommendations.

1. The Homestead Commission recommends an appropriation sufficient to allow the completion of the experiment commenced in the providing of "small houses and plots of ground for mechanics, factory employees and others in the suburbs of cities and towns," as authorized under chapter 310 of the General Acts of 1917, and accompanies the bill with detailed plans.

The considerations urged in the recommendation of the Commission to the Legislature in 1917 still apply. They were stated as follows: —

There are not enough wholesome low-cost dwellings.

There is no prospect that present methods will ever supply enough unless the State encourages their construction.

Therefore the State should experiment to learn whether it is possible to build wholesome homes within the means of low-paid workers.

The force of these arguments has been greatly strengthened by the need and success of the war-garden movement in the past two years. The further reasons for asking an appropriation this year are as follows: —

The Commission in its purchase of a building site was governed by the evident fact that no fair demonstration could be made by purchasing a lot here and another there and building separate buildings. It was necessary to find a location which would be capable of development as a unit, and which would have the protection of State restrictions within reasonable limits. The smallest available parcel in a good location contained about 7 acres, and on being laid out contained forty-

¹ A new board.

seven lots. The first appropriation (\$50,000) has purchased the land and built twelve houses. Two more are to be immediately completed. This will exhaust the appropriation, and in order to complete the experiment it is needful that a sufficient amount be appropriated to build thirty-three houses.

The fact that, with two exceptions, the houses built were all sold before the contractor had turned them over to the Commission, and the two remaining were sold very shortly after, is perhaps fair evidence of the need of such building.

The Commission therefore asks \$100,000 to complete the experiment.

2. The Commission after careful consideration and full discussion is of the unanimous opinion that the time has come when it should be empowered to employ a permanent secretary on salary. In the past the executive work of the Commission has been performed by the secretary, chosen from its own membership, who gave such portion of his time as he could at a compensation based on the amount of time lost from his regular occupation at the rate received per hour in that employment. If the Homestead project as begun is to be completed this year, there should be a secretary able, if necessary, to devote his full time to the work; furthermore, if the work of the Commission is to justify itself in the future, there should be an executive whose main thought should be directed to the same, and who would devote the whole or a larger portion of his time to these official duties. The Commission accordingly submits bills herewith authorizing the employment of such person.

AN ACT TO PROVIDE FURTHER FOR HOMESTEADS FOR CITIZENS.

Be it enacted, etc., as follows:

SECTION 1. The homestead commission is hereby authorized to expend a further sum not exceeding one hundred thousand dollars for the purpose of relieving congestion of population, and providing homesteads for mechanics, laborers and others, in accordance with the provisions of chapter three hundred and ten, General Acts of the year nineteen hundred and seventeen, and acts amendatory thereto.

SECTION 2. This act shall take effect upon its passage.

AN ACT TO AUTHORIZE THE HOMESTEAD COMMISSION TO EMPLOY A
SECRETARY.

Be it enacted, etc., as follows:

SECTION 1. The homestead commission is hereby authorized to appoint, by and with the consent and subject to the approval of the governor and council, a paid secretary who may be a member of the commission.

SECTION 2. This act shall take effect upon its passage.

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